

Subsistence and Personal Use Salmon Harvests in the Alaska Portion of the Yukon River Drainage, 2004

by

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Divisions of Sport Fish and Commercial Fisheries



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Weights and measures (metric)		General		Measures (fisheries)	
centimeter	cm	Alaska Administrative		fork length	FL
deciliter	dL	Code	AAC	mid-eye-to-fork	MEF
gram	g	all commonly accepted		mid-eye-to-tail-fork	METF
hectare	ha	abbreviations	e.g., Mr., Mrs., AM, PM, etc.	standard length	SL
kilogram	kg			total length	TL
kilometer	km	all commonly accepted			
liter	L	professional titles	e.g., Dr., Ph.D., R.N., etc.	Mathematics, statistics	
meter	m			<i>all standard mathematical</i>	
milliliter	mL	at	@	<i>signs, symbols and</i>	
millimeter	mm	compass directions:		<i>abbreviations</i>	
		east	E	alternate hypothesis	H _A
Weights and measures (English)		north	N	base of natural logarithm	<i>e</i>
cubic feet per second	ft ³ /s	south	S	catch per unit effort	CPUE
foot	ft	west	W	coefficient of variation	CV
gallon	gal	copyright	©	common test statistics	(F, t, χ^2 , etc.)
inch	in	corporate suffixes:		confidence interval	CI
mile	mi	Company	Co.	correlation coefficient	
nautical mile	nmi	Corporation	Corp.	(multiple)	R
ounce	oz	Incorporated	Inc.	correlation coefficient	
pound	lb	Limited	Ltd.	(simple)	r
quart	qt	District of Columbia	D.C.	covariance	cov
yard	yd	et alii (and others)	et al.	degree (angular)	°
		et cetera (and so forth)	etc.	degrees of freedom	df
Time and temperature		exempli gratia		expected value	<i>E</i>
day	d	(for example)	e.g.	greater than	>
degrees Celsius	°C	Federal Information		greater than or equal to	≥
degrees Fahrenheit	°F	Code	FIC	harvest per unit effort	HPUE
degrees kelvin	K	id est (that is)	i.e.	less than	<
hour	h	latitude or longitude	lat. or long.	less than or equal to	≤
minute	min	monetary symbols		logarithm (natural)	ln
second	s	(U.S.)	\$, ¢	logarithm (base 10)	log
		months (tables and		logarithm (specify base)	log ₂ , etc.
Physics and chemistry		figures): first three		minute (angular)	'
all atomic symbols		letters	Jan,...,Dec	not significant	NS
alternating current	AC	registered trademark	®	null hypothesis	H ₀
ampere	A	trademark	™	percent	%
calorie	cal	United States		probability	P
direct current	DC	(adjective)	U.S.	probability of a type I error	
hertz	Hz	United States of		(rejection of the null	
horsepower	hp	America (noun)	USA	hypothesis when true)	α
hydrogen ion activity	pH	U.S.C.	United States	probability of a type II error	
(negative log of)			Code	(acceptance of the null	
parts per million	ppm	U.S. state	use two-letter	hypothesis when false)	β
parts per thousand	ppt, ‰		abbreviations	second (angular)	"
			(e.g., AK, WA)	standard deviation	SD
volts	V			standard error	SE
watts	W			variance	
				population	Var
				sample	var

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ALASKA PORTION OF THE YUKON RIVER DRAINAGE, 2004**

by

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ABSTRACT

This annual study estimated the subsistence and personal use salmon harvest within the Alaskan portion of the Yukon Area drainage. Most Yukon Area communities have no regulatory requirements to report their subsistence salmon harvest. For these communities, a voluntary survey program was utilized. Harvest information was collected through postseason household interviews, follow-up telephone interviews and postal questionnaires, and harvest calendars. Stratified random sampling techniques were used to select Yukon Area households to be interviewed. In 2004, surveyors contacted 1,055 households in 33 communities. Data from surveyed households were expanded to estimate the harvest of unsurveyed households. In more accessible portions of the Yukon Area, fishers must document their harvest on a subsistence or personal use permit. In 2004, 462 subsistence and personal use permits were issued, with 93% returned. Of these returned permits, 246 reported a harvest. This report also documents subsistence fish given to households from various test fish projects. The total subsistence and personal use harvest throughout the Yukon Area was estimated to be 55,914 Chinook *Oncorhynchus tshawytscha*, 78,165 summer chum *O. keta*, 62,756 fall chum *O. keta*, and 21,028 coho *O. kitsutch* salmon. The most common fishing gear types used were set gillnets (52%), drift gillnets (40%), and fish wheels (7%). Approximately 257 households fed an estimated 78,579 salmon to 5,631 dogs.

Key words: amount necessary for subsistence, Chinook, chum, coho, harvest, northern pike, personal use, salmon, inconnu, subsistence, Tanana River, whitefish, Yukon River.

INTRODUCTION

Annual documentation of the subsistence salmon harvest is necessary to determine if sufficient salmon are returning to the Yukon Area for escapement and subsistence requirements, and if enough fishing opportunities are provided to meet subsistence needs. Since 1961, the Alaska Department of Fish and Game (ADF&G) has collected information on subsistence salmon harvest and use in the Yukon Area (ADF&G 2002). Most subsistence users along the Yukon River drainage are not required to record or report their harvest on permits, so the primary method of estimating this harvest is the annual subsistence salmon harvest survey conducted by ADF&G. In more accessible portions of the Yukon Area, salmon fishers must obtain a subsistence or personal use permit. Using a combination of survey and permit information, this report documents the estimated subsistence and personal use harvests within the Alaskan portion of the Yukon River drainage.

The Yukon Area includes all waters of Alaska within the Yukon River drainage and all coastal waters of Alaska from Point Romanof southward to the Naskonat Peninsula (Figure 1). For management purposes, the Yukon Area is divided into 7 districts and 10 subdistricts. The Lower Yukon Area consists of coastal waters in the Yukon Area and the Yukon River drainage from its mouth to Old Paradise Village, and is composed of Districts 1, 2, and 3. The Upper Yukon Area consists of the Yukon River drainage upstream of Old Paradise Village to the Canadian border and is divided into Districts 4, 5, and 6. The Coastal District includes the remainder of coastal Yukon Area waters not included in District 1. The difference between the Yukon River and the Yukon Area is that the Yukon Area includes the Coastal District. Only Yukon River harvests are considered when addressing U.S.-Canadian fishery concerns.

Five species of Pacific salmon are found in the Yukon River drainage: Chinook *Oncorhynchus tshawytscha*, chum *O. keta*, coho *O. kitsutch*, pink *O. gorbusch*, and sockeye *O. nerka* salmon. The majority of subsistence and personal use harvests are made up of Chinook, chum and coho salmon. The chum salmon return consists of 2 temporally and genetically distinct stocks: early (summer chum) and late (fall chum).

Many communities are located throughout the Yukon River drainage. The residents in these rural communities are primarily of Yupik Eskimo and Athabascan Indian descent. Excluding the greater Fairbanks area (approximately 87,000 people) the most recent census indicates the rural resident population in 2004 was approximately 21,700 (Williams and Fried 2005). The recent 5-year (1999–2003) average population of rural residents within the Yukon Area, excluding the greater Fairbanks area, has remained stable at 21,000.

These Yukon Area communities have a long tradition of harvesting salmon for subsistence use. Chinook salmon are highly valued for human consumption, and harvests in the Lower and Upper Yukon areas are similar. Subsistence salmon harvested for human consumption are commonly dried, smoked, or frozen. There is usually little wastage of fish taken for subsistence purposes, although damp weather may cause some drying fish to spoil and some fish are lost to disease (e.g. *Ichthyophonus*) or predation (e.g. birds or bears).

In addition to human consumption, salmon are fed to dogs, which are used for recreation, transportation, and as haul animals. Small Chinook (“jacks”), summer chum, fall chum, and coho salmon are primarily harvested to feed dogs in the Upper Yukon Area (Andersen 1992). Most subsistence salmon used for dog food are dried (summer chum salmon) or “cribbed” (frozen in the open air) in the case of fall chum and coho salmon. In the Lower Yukon Area, dogs are often fed scraps that become available during the processing of freshly harvested salmon; relatively few whole fresh salmon are fed to dogs. Today the practice of keeping sled dogs is more common in the Upper Yukon Area than in the Lower Yukon Area. A gradual reduction in the need for salmon as dog food began around 1930, when airplanes began replacing sled dogs as the primary mail and supply carrier. This decline accelerated in the 1960s with the introduction of snow machines to Interior Alaska (Andersen 1992). Beginning in the early 1980s, there was a renewed interest in the recreational use and racing of sled dogs, thereby increasing the number of subsistence salmon harvested for dog food.

Subsistence salmon fishing activities in the Yukon Area typically begin in late May and continue through early October. Salmon fishing in May and October is highly dependent upon river ice conditions. Fishing activities are usually based from a fish camp or a home village. Extended family groups, representing 2 or more households, often work together to harvest, cut, and preserve salmon for subsistence use. Some households from communities not located along the mainstem Yukon River, such as Shageluk, operate fish camps along the mainstem Yukon River (Figure 1).

Subsistence and personal use fishers in the Yukon Area primarily use drift gillnets, set gillnets, and fish wheels to harvest salmon. Set gillnets are utilized throughout the Yukon Area, whereas drift gillnets are only allowed from the mouth of the Yukon River to 18 miles below the community of Galena (River Mile 530). Although fish wheels are a legal gear type for subsistence fishing throughout the drainage, they are essentially used only in the Upper Yukon Area, where water conditions and fishing locations are more suitable for fish wheels operation and where ample supplies of logs and young spruce trees used for the raft, axle and axle’s stanchion, lead, and baskets are available for construction.

The total estimated salmon harvest in the Alaska portion of the Yukon River drainage is comprised of harvest from both subsistence and personal use fisheries. State regulations dictate that subsistence is the highest priority use of salmon, and subsistence is a primary consideration in fishery management actions. While subsistence salmon fishing in the Yukon Area primarily occurs in non-permit areas, some portions of the Yukon River and the entire Tanana River are accessible

from the road system, so more fishers from urban areas potentially travel there to subsistence fish. Subsistence permits are used to document harvest data, as otherwise much harvest would go unreported because of the transient nature of these fishers and the fact that most do not reside in a surveyed village. Personal use fishing occurs in the Fairbanks Nonsubsistence Management Area (Figure 4), which was established due to the heavy demand urban fishers may place on the resource. In this nonsubsistence area, fishers must possess a personal use permit and a sport fish license. State regulations dictate that personal use fishing has a lower priority than subsistence fishing. Similar to subsistence permits, personal use permits allow managers to track harvest.

Many Yukon Area residents participate in both commercial and subsistence salmon fishing. Restrictions on subsistence salmon fishing may be required during a commercial salmon fishing season to assist in the enforcement of commercial fishing regulations and the management of harvest amounts. However, during a typical salmon fishing season, substantially more time is allowed for subsistence fishing than for commercial fishing. Commercial fishing in the Upper Yukon River began in 1974 (ADF&G 2002). From 1974 through 1977, the sale of roe from subsistence caught salmon was legal. Salmon or their eggs harvested during subsistence openings can no longer be legally bought or sold under the State of Alaska regulations. However, flesh from commercially harvested salmon may be retained for subsistence use.

Although most subsistence and personal use salmon harvested in the Yukon Area originate from Yukon River drainage stocks, communities within the Coastal District may also harvest stocks bound for other areas. A salmon mark-recapture study, conducted in marine waters near Hooper Bay in 1986, documented the presence of Norton and Kotzebue Sound chum salmon stocks in the area (Kerkvliet 1986). This study, however, also showed that 89% of the recovered tagged summer chum salmon were of Yukon River origin.

Stevens Village is uniquely situated outside of a permit area on the Yukon River (Figure 1), and consequently is visited as part of the postseason subsistence survey, yet some residents of Stevens Village also travel to a permit area to fish. Some household's data will therefore be represented on both the survey and permit data. In these situations, survey data are used when calculating the subsistence harvest from Stevens Village. This overlap between the subsistence and permit areas can occasionally cause inconsistencies between numbers reported on the subsistence and permit tables. In these instances, readers should take note of footnotes accounting for the discrepancies.

OBJECTIVES

The specific objectives of the study:

1. estimate and document the 2004 Yukon Area subsistence and personal use salmon harvest by species and harvest area;
2. estimate and document the 2004 Yukon Area subsistence salmon "use" by households in surveyed communities by species and harvest area;
3. identify Yukon Area fishing households and the number of people in each household;
4. determine the gear types used by Yukon Area subsistence and personal use fishers;
5. include numbers of fish provided to communities for subsistence use that originated from Yukon Area test fishery programs;

6. estimate the number of dogs, number of households with dogs, number of households that feed fish to dogs, and the number of fish fed to dogs;
7. record the number of nonsalmon species (primarily freshwater fish species) utilized by the communities which participate in the Yukon Area subsistence and personal use fisheries.

Additional objectives were to provide documentation of the number of households in surveyed communities, relative percent success in meeting their subsistence salmon needs, number of salmon “lost” and not available for human consumption, and review comments and concerns relayed by subsistence users.

METHODS

POSTSEASON SUBSISTENCE SURVEYS

The 2004 subsistence survey program was designed to provide an estimate of the salmon harvested by subsistence fishing households along the Alaskan portion of the Yukon River drainage. Primary components of the survey program were postseason interviews and follow-up telephone or postal surveys.

The first step in the interview program was to identify Yukon Area households and to select which households would be surveyed. ADF&G’s database of Yukon Area households or “families” database was maintained and updated by using previous years’ survey information, which was obtained by contacting knowledgeable individuals in each community, who reviewed the household list. In 2004, the Yukon River Drainage Fisheries Association (YRDFA) supported ADF&G’s efforts by hiring local residents as Subsistence Assistants, who reviewed the household list as one of their duties. ADF&G also used various village census lists, telephone and utility lists, and the Alaska Permanent Fund Dividend application list.

The families database formed the framework for the stratified random sampling program. Each household in the database was assigned to 1 of 5 user groups (strata or harvest level) based on the household’s harvest history. These strata were identified as *Unknown*, *Do Not Fish*, *Light*, *Medium* or *Heavy*. In 2004, households with historical harvest information were placed in a user group based upon a 2-year harvest average (all species combined). Data was selected from the most recent 2 years available, in the time period 1997–2003. Typically, the most recent 5-year range is used, but the years 1998 and 2000 were excluded because poor salmon runs during those years led to fall season subsistence fishing restrictions and resulted in lower than normal harvests. If 2 recent years of harvest data were unavailable for a household, then the household’s user group remained unchanged. In the Yukon Area, an average harvest of 1 to 100 salmon was considered *Light*, a harvest of 101 to 500 salmon was considered *Medium*, and a harvest greater than 500 salmon was considered *Heavy*.

Next a stratified random sample (Cochran 1977) of households was drawn from the stratified population. In general, strata sample sizes were based upon the level of harvest. In 2004, 100% of the households in the *Unknown*, *Medium*, and *Heavy* user groups and 30% of the households in the *Light* and *Do Not Fish* user groups were selected to be sampled. If there were 5 or fewer households within a given harvest level then that equaled the sample size. All households were sampled in communities with 40 or fewer households. The percentage of households sampled was

increased to 50% for the *Light* user group in Emmonak, Holy Cross, Pilot Station and Tanana to improve the precision of harvest estimates in these larger communities.

In 2004, a total of 1,300 households were selected to be surveyed in 33 communities (Table 6). Surveyors traveled to 31 Yukon Area communities between September 3 and October 29 to conduct postseason interviews (Table 1). Surveyors had planned to visit 2 additional villages (Bettles and Birch Creek), but due to weather-related complications those villages were instead surveyed by telephone.

Surveys were conducted in early fall because the majority of salmon fishing was finished, yet fishers could still recall their harvest numbers because the season had ended recently. Before conducting interviews, surveyors were trained in surveying techniques, including suggestions on how to get the best information possible from people who may not know the exact number of fish they harvested or who are not used to quantifying their fish harvest. In addition, the surveyors were trained in salmon species name identification, as local names for salmon vary throughout the drainage. For example, fishers in many portions of the Yukon Area use the term “dog salmon” to refer to summer chum and “silvers” to refer to fall chum salmon. The surveyors were also briefed on any fishery issues or concerns from the 2004 subsistence and commercial salmon fishing season, in case the surveyors encountered these issues when conducting surveys. During interviews, the surveyors and surveyed individuals contributed to the quality of the estimate. Surveyors had a responsibility to attempt to contact all selected households, ask questions consistently and understandably, and foster a cooperative atmosphere. Surveyors attempted to interview a member of each selected household, preferably the primary harvester. After the interview was completed survey participants were given a small token of appreciation (a 5-foot retractable tape measure) for participating in the survey.

Interview questions were designed to provide a quantitative and qualitative assessment of each household’s subsistence salmon harvest (Figure 2). Household members were asked their total salmon harvest and use (by species) for the season, the fishing gear used, and areas fished. To determine distribution of fish within a village, households were asked how many families had fished together and how much of the group’s catch went to the selected household. Households were also asked whether the household had either given salmon to other families or whether they had received salmon from other households or from any test fishery project. In addition, households were asked how many salmon were harvested for dog food.

This year’s survey form was the same as in previous years except for Question 15, which was broadened to include reported harvests of sockeye salmon. Sockeye salmon are caught infrequently in the Yukon River drainage, but in recent years fishers have increasingly reported catches of sockeye salmon. Because of these reports, managers wanted to more systematically monitor sockeye salmon harvest drainage-wide. Reported sockeye salmon harvests were not expanded because these harvests were too low and only limited information was obtained.

Households were also asked about their harvest of pink and sockeye salmon and miscellaneous nonsalmon species. Reported harvests of pink salmon, whitefish *Prosopium spp.* and *Coregonus spp.*, northern pike *Esox lucius*, and inconnu *Stenodus leucichthys* were expanded to estimate total harvests for surveyed communities. Harvest for whitefish, northern pike, and inconnu was expanded because fishing for these species often coincides with salmon fishing, so the survey design, which is structured around salmon harvest levels, should also reasonably account for the

harvest of any species of similar size caught while salmon fishing. The reported harvests of other nonsalmon species were not expanded because they fall outside the intent of this survey.

In addition to estimating total salmon harvest, the survey also generated an estimate of total salmon use for surveyed communities. Estimated use included both salmon harvested and retained by a household (for the household's own use), as well as fish the household received from other subsistence fishers, test fish projects, or from commercial activities.

Follow-up telephone interviews were attempted for any selected households that were unavailable and not contacted by surveyors while in the communities. If the surveyor was still unable to contact a knowledgeable individual in the household, a postage-paid returnable survey questionnaire was mailed to the household.

CALENDARS

Calendars were distributed to households in surveyed communities in Districts 1–4 and a portion of District 5. Prior to the start of the 2004 salmon fishing season, ADF&G distributed subsistence harvest calendars via mass mailings to Lower Yukon and Upper Yukon area households that were identified based on the previous year's updated database. As described above, each identified Yukon Area household was assigned a user group: *Unknown*, *Do Not Fish*, *Light*, *Medium*, or *Heavy*. In 2004, calendars were mailed to all households except those in the *Do Not Fish* category. ADF&G has been experimenting with its calendar mailout strategy in recent years due to low response rates and the cost of large mailings. Prior to 2002, every identified Yukon River household received a calendar. In 2002, a more selective strategy was tried, with calendars mailed only to those households who had returned a calendar at least once in the last 10 years (Brase and Hamner 2003). This attempt resulted in a higher return rate and reduced expense, but it missed a substantial number of current fishing households. In 2003, ADF&G sent calendars to all households identified in the subsistence survey database (Busher and Hamazaki 2005). Once again the calendar return rate was low and the mailing cost was high. The 2004 method attempted to mail a calendar to any household that might fish and to households with unknown subsistence fishing habits, while reducing the waste of mailing substantial numbers of calendars to households that do not fish. As always, extra calendars were also made available upon request.

The calendars provided space for fishermen to record their daily salmon harvest by species. Harvest information from calendars returned before or during the subsistence survey was used to help fishers remember their harvest during postseason surveys. Calendars were occasionally used as the primary source of harvest data when contact was not made with a household selected to be surveyed. Additionally, calendars provided data for assigning households to the various harvest strata in the families database. This was particularly crucial for households that were not selected for interviews in a given year. Calendars often included harvest from multiple households that fish together, so reported harvest may represent the efforts of multiple households. Every effort was made to contact the head of household to verify harvest information when using the calendars.

In an effort to increase the number of calendars returned during village surveys, posters were sent to village post offices to remind fishermen to have their harvest calendars available for the surveyors. Additionally, survey schedules were broadcast over local radio stations before the surveyors' arrival. Everyone who returned a properly filled out calendar became eligible for 1 of two \$100 lottery prizes.

PERMITS

Where the Yukon River drainage is accessible by the Alaska Highway road system, households are required to obtain subsistence or personal use fishing permits. Permits were issued for a portion of District 5 and all of District 6 (Tanana River). Permits were issued from ADF&G area offices in Fairbanks, Delta Junction, and Tok. In addition, permit applications for the current season were mailed to all users who returned their permits from the previous season. Subsistence permit applications sent outside Fairbanks included a letter explaining how to apply by mail, a postage paid return envelope, and a schedule of when a ADF&G representative would visit their community. In 2004, permit issuing trips were conducted in the communities of Central, Circle, Delta Junction, Dot Lake, Eagle, Manley, Minto, Nenana, Northway, Rampart, Tanacross, and Tok (Figure 1).

Permit holders were required to keep a record of their daily fish harvest on the permit and return the completed permit to ADF&G within 10 days of the permit expiration date. Households with expired permits that had not reported their harvest were mailed up to 2 reminder letters, 2 weeks apart. Telephone contact was attempted with households that did not respond to the reminder letters. Harvests were tabulated postseason for all permit holders who returned their permit, returned a completed reminder letter, or verbally reported their harvest information. These results were not expanded for users who did not return their permits.

STATISTICAL METHODS

In the postseason survey, standard stratified random sampling methods (Cochran 1977) were used to estimate the average and total number of fish caught by each of the 5 user groups in each surveyed Yukon Area community.

Denote that:

N_{kj} = number of households in j th ($j = 1 \dots 5$) user group of the k th community

n_{kj} = number of sample households in the j th user group of the k th community

y_{kji} = response of i th sample household ($i = 1 \dots n_{kj}$) in the j th user group of the k th community

Mean response of the j th user group of the k th community (\bar{y}_{kj}) was

$$\bar{y}_{kj} = \frac{\sum_{i=1}^{n_{kj}} y_{kji}}{n_{kj}} \quad (1)$$

and its standard error (SE_{kj}) was

$$SE_{kj} = \sqrt{\frac{s_{kj}^2}{n_{kj}} \left(\frac{N_{kj} - n_{kj}}{N_{kj}} \right)} \quad \text{where} \quad s_{kj}^2 = \frac{\sum_{i=1}^{n_{kj}} (y_{kji} - \bar{y}_{kj})^2}{n_{kj} - 1} \quad (2)$$

The estimate of total responses of the k th community (\hat{T}_k) was:

$$\hat{T}_k = \sum_{j=1}^5 N_{kj} \bar{y}_{kj} \quad (3)$$

and its 95% confidence interval (95%CI_k) was

$$95\%CI_k = 1.96 \cdot \sqrt{\hat{V}(T_k)} \quad \text{where } \hat{V}(T_k) = \sum_{j=1}^5 N_{kj}^2 \left(\frac{N_{kj} - n_{kj}}{N_{kj}} \right) \left(\frac{s_{kj}^2}{n_{kj}} \right) \quad (4)$$

Because the estimates of the responses in each community were independent from each other, the estimate of survey wide total (\hat{T}) was

$$\hat{T} = \sum_{k=1} \hat{T}_k \quad (5)$$

and its 95% confidence interval (95%CI) was

$$95\%CI = 1.96 \cdot \sqrt{\hat{V}(T)} \quad \text{where } \hat{V}(T) = \sum_{k=1} \hat{V}(T_k) \quad (6)$$

RESULTS

OVERALL ESTIMATION OF HARVEST

Based on the 2004 postseason surveys, returned permits, and salmon made available from test fish projects, an estimated 1,444 households harvested an estimated 55,914 Chinook, 78,165 summer chum, 62,756 fall chum, and 21,028 coho salmon in the Yukon Area (Table 1). Households in Districts 4 and 5 harvested the most Chinook salmon (57%), households in Districts 1 and 2 harvested the most summer chum salmon (60%), households in District 5 harvested the most fall chum salmon (65%), and households in District 6 harvested the most coho salmon (56%; Table 1).

Table 1 presents the estimated total of all salmon that were harvested for subsistence and personal use. This includes the total estimated harvest extrapolated from 1,055 surveyed households (81% of the total selected; Table 6), and 430 returned permits (93% of the total issued; Table 3). This also includes the fish distributed from 6 test fish projects within the Yukon Area. For survey purposes, test fish are included in a household's use rather than their harvest. For purposes of estimating the total number of fish killed and ultimately utilized for subsistence (Table 1), the test fish numbers are included.

The most common gear types used for subsistence and personal use salmon fishing throughout the Yukon Area were set gillnets (52%), drift gillnets (40%), and fish wheels (7%; Table 1). Other gear types used accounted for less than 1%. Test fish projects provided 1,823 Chinook, 2,716 summer chum, 2,378 fall chum, and 801 coho salmon to households for subsistence use (Table 1).

Commercial fishers retained a total of 229 Chinook, 1,321 summer chum, 10 fall chum, and 15 coho salmon for subsistence use in the surveyed communities. Commonly these fish were kept as an "eating fish" for that night's dinner. The numbers given here are actual harvest numbers (with no expansion) and were included in the Yukon Area estimated subsistence harvest totals (Tables 1 and 9).

Approximately 147 surveyed households and 110 permitted households reported feeding subsistence caught salmon to dogs (Tables 2 and 3). An estimated 78,579 salmon were retained for dog food (from both surveyed and permitted households) throughout the Yukon Area (Tables 3 and 4). In the surveyed communities, 183 commercially caught summer chum salmon were retained for subsistence use as dog food (Table 5). In the permit community of Nenana and the Fairbanks Area of District 6, however, flesh from an estimated 22,000 fall chum and coho salmon harvested for the roe fishery were returned to fishers for subsistence use, most likely for dog food.

A total of 1,736 salmon (less than 1% of the total salmon harvested) were reported lost for consumption in the surveyed communities (Appendix A12). These losses included 471 Chinook, 1,002 summer chum, 191 fall chum, 27 coho, and 45 pink salmon. In addition, 192 Chinook, 326 summer chum, 27 fall chum, 7 coho, and 10 pink salmon were unfit for human consumption and consequently fed to dogs.

POSTSEASON SUBSISTENCE SURVEYS

Postseason surveys were conducted with 1,055 households (81% of total households selected; Table 6). Of the 2,274 total households identified in the survey area, an estimated 1,246 households (55%) participated in the 2004 subsistence fishery (Table 7). The total population of the surveyed communities was estimated at 8,876 people (Table 8). Based on the postseason surveys, approximately 47,701 Chinook, 72,816 summer chum, 44,635 fall chum, and 8,205 coho salmon were harvested in the surveyed villages (Table 9). Households reported being given 4,944 Chinook, 5,989 summer chum, 2,884 fall chum, and 857 coho salmon from subsistence fishers (Appendix A9). Households also reported being given 439 summer chum and 374 coho salmon from commercial fishers (Appendix A10). Of the salmon harvested and/or given away to households, approximately 41,048 Chinook, 65,896 summer chum, 42,739 fall chum, and 6,854 coho salmon were used for subsistence purposes (Table 10). This estimate includes salmon used by fishing and non-fishing households in the surveyed communities. Fish distributed to individuals/households not residing in surveyed communities are not included in estimated subsistence use totals.

The combined total harvest of pink salmon, whitefish, northern pike and inconnu in the Yukon Area was estimated to be 109,370 (Table 11). The pink salmon harvest was estimated to be 9,697 fish, of which approximately 82% were harvested in the communities of Hooper Bay and Scammon Bay. The reported harvest of other miscellaneous fish species, not estimated, in surveyed communities totaled 275,755 fish (Table 12). Blackfish *Dallia pectoralis* represent 60% of the nonsalmon reported harvest (estimated and non-estimated) and are primarily taken in the Lower Yukon Area. Also included in Table 12 is a reported harvest of 787 sockeye salmon.

An estimated 3,984 dogs live in the various surveyed Yukon River communities (Table 2). Although approximately 1,415 Yukon Area surveyed households own dogs, only about 147 households (10%) feed whole fish to dogs. Surveyed households indicated that they fed their dogs approximately 17,448 summer chum, 34,731 fall chum and 4,711 coho salmon from subsistence harvests and 183 summer chum salmon from commercial harvests (Tables 4 and 5).

The survey also asked households fishing for salmon to assess at what level their subsistence salmon needs were met by which species. The household responses were grouped into 4 categories: 0–25%, 26–50%, 51–75%, and greater than 75%. The percent of households stating that they met 50% or less than their needs was about 29% for Chinook, 34% for summer chum,

39% for fall chum, and 40% for coho salmon. The percent of households stating that they met greater than 75% of their need was about 60% for Chinook, 53% for summer chum, 53% for fall chum, and 52% for coho salmon (Table 17). Not every household responded for each species, so the number of respondents varied by species. For example, far more households commented on Chinook salmon success (693, 43%) than on coho salmon success (177, 11%).

Survey information includes 8 additional households not pre-selected for the survey from 6 communities. These surveys were conducted 1 each in Pitkas Point, Russian Mission, Shageluk and Stevens Village, and 2 each in Galena and Holy Cross. All additional households surveyed indicated harvest of 1 or more salmon species and the data was incorporated into the results. The addition of these extra surveys is not statistically significant. Occasionally, only a partial survey was possible, so the number of households contacted for any given question varies. Because of an oversight, only 2 of 16 *Unknown* households were actually selected to be surveyed in 2004 (Table 6).

CALENDARS

In May 2004, 834 calendars were mailed to Lower Yukon households and 523 were mailed to Upper Yukon households. A few additional calendars were distributed throughout the season in response to individual requests. In 2004, fishers returned a total of 274 subsistence harvest calendars (approximately 20% of total mailed). Of these, 248 returned calendars (91%) reported salmon harvest. The remaining households that returned harvest calendars in 2004 either indicated that they “did not fish” this season (6.6%) or the calendars were returned unused (2.9%).

Reported harvest on calendars was 20,769 Chinook, 26,244 summer chum, 21,449 fall chum, 3,259 coho, and 2,722 pink salmon (Figure 3). Data from the returned calendars are not calculated directly into the Yukon Area harvest estimate, but the data does corroborate harvest and personal information for surveyed households. Additional information gathered from completed calendars includes salmon harvests by day, year, and area fished. The timing of subsistence harvests by species can be compared to the relative timing of the salmon run passing through an area.

PERMITS

Subsistence

In 2004, 362 (93%) subsistence permits were returned (Table 18). A total of 6,556 Chinook, 2,429 summer chum, 15,513 fall chum, 11,789 coho salmon, 4,351 whitefish, 96 inconnu, 127 burbot *Lota lota*, 606 northern pike, 340 longnose suckers *Catostomus catostomus*, and 1,032 Arctic grayling *Thymallus arcticus* were reported by subsistence permit holders in 2004 (Tables 18 and 19). A total of 210 households reported participating in salmon and nonsalmon subsistence fisheries (Table 3). The most common gear types reported in the subsistence salmon fishery were set gillnets (82%) and fish wheels (18%; Table 1). The largest percentage of salmon permits were issued for the Yukon River area near Circle and Eagle (23%), and the largest percentage of nonsalmon permits (25%) were issued for northern pike for the Tolovana River drainage (Table 18). From the permits, 110 households indicated that they fed salmon to dogs (Table 3). These households reported retaining 21,689 whole salmon for dog food. Harvest timing data by day and species are also gathered from properly completed permits for portions of Districts 5 and all of District 6. In District 5, a combination of data collection

methods (calendars, permits, and surveys) provides a more complete picture of the area's harvest. The 2004 permit harvest information is based on permits returned by June 1, 2005.

Personal Use

Personal use permits for salmon and nonsalmon species are only issued for the Fairbanks Nonsubsistence Area (Figure 4). In 2004, 68 (96%) personal use permits were returned (Table 18). Personal use permit holders reported harvesting 201 Chinook, 231 summer chum, 230 fall chum, 233 coho salmon, 51 whitefish, 1 inconnu, and 1 longnose sucker (Tables 18 and 19). Of the 36 households that fished, 35 households had personal use salmon permits and 1 household had a personal use nonsalmon permit (Table 18). Personal use fishing households reported using set gillnets (94%), fish wheels (3%), and a miscellaneous gear type (3%; Table 1). According to state regulations, fish caught under personal use guidelines cannot be fed to dogs (White 1991). Historically, the personal use salmon fishery was conducted as a subsistence fishery prior to the designation as a non-subsistence area. Historical harvest information for the personal use salmon fishery is summarized in Appendix B5. Since Appendix B5 only includes salmon harvest, the number of returned permits on this appendix does not match the number of returned permits on Table 18, which also includes harvest of nonsalmon species.

DISCUSSION

The estimated 2004 Yukon Area subsistence salmon harvest was 55,713 Chinook, 77,934 summer chum, 62,526 fall chum, and 20,795 coho salmon (Appendix B1–B4). This subsistence harvest is an overall increase of approximately 11% above the recent 5-year average (1999–2003). For individual species, the harvest was above the most recent 5-year average harvest for Chinook (13%), fall chum (41%), and coho salmon (7%) (Appendices B1–B4). The summer chum salmon harvest decreased slightly from the most recent 5-year average (3%).

In 2004, the Yukon River was ice-free on May 8, the earliest date since ADF&G began maintaining records in 1961 and 19 days earlier than the 1962–2003 historic average of May 27 (JTC 2005). The first subsistence catch of chum salmon was reported in St. Mary's on May 18, with the first subsistence catch of Chinook salmon reported on May 22 near Alakanuk. ADF&G's test fishing project recorded its first Chinook salmon on May 28. The ice breakup occurred earlier in the lower river than in the upper river, contrary to normal. Early in the season, unusually low water levels characterized the lower river. As snowmelt in the middle and upper portions of the Yukon River progressed, the water level rose to normal breakup levels (JTC 2005). Debris early in the season affected ADF&G's test fishing project and the ability to effectively ascertain Chinook salmon timing and to a lesser degree run strength. The high water and debris load in the river affected early fishing efforts by subsistence fishers.

The ADF&G outlook for the 2004 Chinook salmon run was to be below average, but stronger than the 2001 and 2002 runs. Managers anticipated that the Chinook salmon run would provide for escapement, support an average subsistence harvest, and a below average commercial harvest. The summer chum run was expected to provide for escapement, support an average subsistence harvest, and a small, directed commercial harvest. These runs came in stronger than anticipated, with inseason run assessment projects throughout the drainage indicating that Chinook and summer chum salmon escapements goals were either met or exceeded (JTC 2005). This survey indicated that the Chinook salmon subsistence harvest was average to above average

and 13% above the recent 5-year average and 10% above the recent 10-year average (Appendix B1; Figure 5). The 2004 summer chum salmon subsistence harvest was 3% below the recent 5-year average and 21% below the recent 10-year average (Appendix B2; Figure 6).

July 16 marks the date fishery management changes from summer to fall management and is based historically on the average date fall chum salmon outnumber summer chum salmon in Lower Yukon Area in District 1. Subsistence fishing efforts are usually light during the transition period from summer to fall season, when relatively few chum salmon (both summer and fall stocks) are moving into the river. Some subsistence fishers are able to recognize and report the changes in proportion of the 2 runs in their catches based on size, skin color, and flesh color. The late arriving summer chum salmon are smaller in size, skin more watermarked, and flesh is pale. Fall chum salmon are difficult to manage because of their smaller run size and entry pattern. After entering the river, Chinook and summer chum salmon runs typically build to a peak and then subside, whereas fall chum salmon enter the river in pulses, having 1 to 5 distinct peaks throughout the run. This unpredictable entry pattern makes it hard to assess the run or compare runs from year to year. The fall chum salmon run overlaps with the later-arriving coho salmon run and the 2 species are of similar size, which reduces the ability to manage by gear type, as is possible during the Chinook and summer chum salmon season.

The 2004 preseason outlook for fall chum salmon was for a below average run. The outlook was largely based on the exceptionally poor escapements for the parent years likely to produce the majority of the 2004 return. The 2004 coho salmon run was anticipated to be average to above average. The fall chum salmon run came in below the all-year average and slightly above the even-year average. The Tanana, Chandalar, and mainstem Yukon stocks attained average to above average escapements, while the Porcupine stocks remained the weakest component. ADF&G's Pilot Station sonar project estimated coho salmon passage at 188,350, 23% above the recent 5-year historical average passage estimate of 153,472 fish and second highest only to the 2003 season (McIntosh *In prep*). This survey indicated that the fall chum salmon subsistence harvest was 18% below the recent 10-year average but 41% above the recent 5-year average (Appendix B3; Figure 7). The coho salmon harvest was 7% above the recent 5-year average but 14% below the recent 10-year average (Appendix B4; Figure 8). Harvest may be below a 10-year average but above a 5-year average because the most recent 5-year averages include years (2000–2002) with extremely poor fall chum salmon runs, when subsistence fishing was restricted. The management for fall chum salmon necessarily affects coho salmon harvest averages due to the similar size and run timing of the 2 species.

There are several methods for evaluating the subsistence harvest of these runs. ADF&G managers have continual inseason communications with fishers to obtain their feedback regarding subsistence fishing success and concerns. In addition, YRDFA schedules weekly inseason teleconferences to give fishers throughout the Yukon River Area an opportunity to discuss the ongoing run with fisheries managers. In 2004, these teleconferences reported good catches of Chinook and summer chum salmon. Additionally, the United States Fish and Wildlife (USFWS) complete weekly inseason surveys in selected villages. This information is also shared during the weekly YRDFA teleconferences that assist managers understand how the subsistence season is unfolding. In 2004, these surveys suggested subsistence needs were being met by those fishers surveyed in the villages of Emmonak, Holy Cross, Nulato, Galena, and Circle (Gerken and Holder *In prep*).

These methods give inseason insight into the runs, however, they do not provide a historical perspective. One method for assessing the relative success of Yukon Area fishers is to compare the annual drainage-wide estimated subsistence harvest to historic averages. In January 2001, the Alaska Board of Fisheries (BOF) used ADF&G's harvest data to adjust the "amount necessary for subsistence" (ANS), a measure which attempts to quantify the amount of salmon reasonably necessary for subsistence use in the Yukon Area. The BOF established maximum and minimum ANS harvest ranges based on the total historic estimated harvest for each species by all districts combined for the years from 1990 to 1999. The ANS levels represent the needs of all subsistence users drainage-wide and do not necessarily reflect the needs of specific individuals, communities, or sections of the drainage. The ANS will require periodic adjustments since the ANS cannot account for trends over time, such as changes in fishing patterns due to population shifts or changes in the fisheries. The ANS levels are 45,500–66,704 Chinook, 83,500–142,192 summer chum, 89,500–167,900 fall chum, and 20,500–51,980 coho salmon. When determining the ANS for fall chum and coho salmon, the fall seasons for the years 1993 and 1998 were excluded due to fishing restrictions and closures implemented to meet escapement objectives in those years.

In 2004, the estimated subsistence harvest of Chinook and coho salmon were within the ANS ranges (Figures 5 and 8). The summer chum and fall chum salmon subsistence harvest was 6% and 30%, below the lower ANS boundary, respectively (Figures 6 and 7). The 2004 fall chum salmon harvest reflects an increase over the 2003 harvest, as the 2003 harvest was 35% below the ANS range. This is partially a reflection of the situation in Eagle, where the 2004 fall chum salmon harvest increased 91% over 2003. Many Eagle residents traditionally fish for fall chum salmon for use as dog food. To allow a rebuilding of fall chum salmon stocks destined for Canada, in 2001 and 2003 the U.S./Canada Research and Enhancement project offered Eagle residents the voluntary option of being given fish for dog food in exchange for agreeing not to fish on the Yukon River. Participants received approximately 14,500 to 15,000 coho salmon from the Valdez Fishery Development Association's hatchery, in a project funded by the U.S./Canada Research and Enhancement project. The 2001 and 2003 harvest numbers did not include any fish from outside the Yukon Area. In 2004, Eagle fishers received no hatchery fish, and they returned to a more typical subsistence fishing pattern with no special closures or restrictions. An observed increase in the community of Eagle's harvest accounts for 3% of the 5% improvement toward attaining the ANS level. The overall increase in subsistence salmon harvests seen in 2003 continued with similar harvest numbers in 2004 (Figure 9).

The postseason survey provides another method for assessing the success of Yukon Area fishers in surveyed communities, as households were asked whether their subsistence salmon needs were met (Figure 2, Question 21). Unlike the broader ANS levels, the survey question provides data on a village-by-village basis. This question has evolved over the years of the survey. Beginning in 1992, ADF&G asked whether subsistence salmon needs were met (yes/no) and quality of run (very good, average, very poor) by species. In an attempt to capture more detailed and more representative data, question 21 was edited in 2003. The (yes/no) "needs met" was replaced with a percent needs met, and households were asked the percent success for each salmon species, rather than for all species combined. Breaking down the data by species is helpful because out of choice or opportunity fishers may fish for 1 species and not another, and fishers may have had differing success for different species. For example, the water levels may have been high during the Chinook salmon run hindering a household's fishing success, while they were later able to successfully harvest fall chum salmon. When question 21 was edited in

2003, the (yes/no) “needs met” and “quality of run” questions were combined. A general assumption was made that the “needs met” and “run assessment” were linked, in that a higher percent needs met suggests that the run was sufficient to provide for most subsistence needs. However, even in years with relatively good escapement, approximately 20%–30% of households state that their needs are not met (Brase and Hamner 2003). The changes to question 21 made in 2003 and continued in 2004 rendered the data from this question not comparable with the historical data displayed in Appendix B12. The data for 2003 and 2004 is in Appendix B13.

Question 21 is a qualitative question, as its interpretation may vary from surveyor to surveyor and respondents must subjectively assign a percent to their success. In particular, it is hard to quantify the needs of people who do not fish. Respondents must self-identify whether they have a need for salmon and to what extent that need was met. Data from the question have proved useful. First, the data provide a postseason “report card” on the season’s run strength, as ideally a strong run would be reflected in a strong subsistence harvest, with a higher percent needs met. Second, the data are unique in breaking down percent needs met by species and community, and thus can provide a general indicator of how the fishing season went in specific communities.

Identifying the harvest and success of individual households is often difficult in a subsistence economy because harvest is frequently shared and accounted for on the level of extended families or fishing groups rather than on the level of individual households. One basic reality of subsistence economies is that the majority of households use or would like to use salmon, even if the household did not fish. Therefore even if a household neither harvested nor used salmon that year, the household might still have a need that was not met (C. Brown, Subsistence Division Resource Specialist, ADF&G, Fairbanks; personal communication). Common examples include elders who no longer fish but still have subsistence needs or households who wanted fish but had boat or motor problems that prevented them from harvesting. People who do not fish generally rely on receiving fish from friend, family, and others who fish. Fish is generally given to them throughout the winter, as the need arises. At the time of the survey, it may be hard for people to assess whether their needs are met because they have not received their fish yet. Families and fishing groups often have a difficult time quantifying how fish is divided amongst different households.

Generally, in communities along the mainstem Yukon River, households reported a similar level of success for all 4 salmon species surveyed (Table 17). Some Koyukuk River communities, such as Huslia, Hughes, and Allakaket (Figure 1), reported low percentages of subsistence needs met for Chinook and summer chum salmon and moderately better success for fall chum salmon; however the number of responses was also low. Some fishers reported high water affected catches during the Chinook salmon season. Community success rates do not account for where individual households fished. For example, in a tributary community some fishers may travel to the mainstem Yukon River to fish, yet their success data is not differentiated from households who fish on the tributary.

In the Coastal District, Hooper Bay suffered a poor fishing season while fishers from Scammon Bay indicated that they met their subsistence need for Chinook and summer chum salmon. Many Scammon Bay households traveled to the Black River to fish. Most Hooper Bay fishers did not meet their subsistence needs because of a rare event of continuous offshore winds that kept Chinook and summer chum salmon from coming into the main bay. Virtually no Chinook or chum salmon were caught near Hooper Bay; fishers who caught Chinook salmon generally traveled to the Black River. Many people reported that they did not bother fishing because “it

was known there were not any fish and gasoline was so expensive.” Some residents chose to harvest pink salmon this year to help meet their needs. Many Hooper Bay households received approximately 3 salmon donated by the Coastal Villages Region Fund (CVRF). CVRF is the Community Development Quota (CDQ) program for 20 villages, mostly on the Kuskokwim Delta, but also including Hooper Bay and Scammon Bay. The CVRF sent 4900 lbs of salmon to Hooper Bay and 5000 lbs to Chevak, but CVRF did not send any fish to Scammon Bay. According to CVRF, all fish were commercially caught coho salmon from Bethel.

Many factors influenced whether subsistence needs were met, including water level and debris levels, gasoline prices, and fires. Extremely low water levels in the Upper Yukon Area prevented Birch Creek residents from traveling away from their village for fishing. Low water levels were also reported on some tributaries in the middle Yukon Area and may have affected harvest of nonsalmon species (C. Brown, Subsistence Division Resource Specialist, ADF&G, Fairbanks; personal communication). Additionally, local residents in the Upper Yukon area noted seeing sandbars along travel routes that they never had seen before (Brown et al. 2007). Gasoline prices did negatively impact fishing efforts, according to some comments received during the survey.

Fires interrupted subsistence fishing along much of the Yukon River and tributaries. In 2004, Alaska suffered from its worst forest fire season in recorded history. Statewide, there were 655 fires reported, with about 6.4 million acres burned (Todd and Jewkes 2006). Many of these fires occurred in the upper Yukon River basin. In many Upper Yukon Area communities river travel was severely restricted due to smoke conditions, while other communities (e.g. Venetie and Eagle) were threatened directly and, in some cases, on alert for evacuation. Thick smoke frequently blanketed the landscape. Also, some residents sought employment on fire fighting crews or rented their boat to fire crews instead of subsistence fishing (Brown et al. 2007).

If the household did not meet its subsistence needs, then surveyors inquired if there was a reason why fishing was poor. ADF&G is especially interested in knowing if there was a fishery-related issue, such as run strength or management actions, that prevented households from meeting their needs. Fishery-related reasons in 2004 included the BOF windows schedule and the timing of the run, which was approximately 4 days earlier than average based on the Lower Yukon test fishery. In addition to fishery-related reasons, other reasons offered included bad drying weather, water conditions (e.g. water levels, debris), equipment failure, lack of time, work schedules, and health reasons. Often households did not meet their needs because they did not fish and no other household was able to provide them with fish. Common reasons for not fishing included being busy, work schedule, lack of gear or equipment failure (e.g. no boat or motor), being elderly, and health reasons.

Qualitative comments on the fishery were collected. Comments covered topics such as the BOF windows schedule, run timing, weather and water-related fishing conditions, and drift gillnetting in Subdistricts 4-B and 4-C. Due to the qualitative nature of the comments, their primary purpose is to provide managers insights into the fishery.

Several comments addressed the use of drift gillnets in Subdistricts 4-B and 4-C. The use of drift gillnets are typically allowed from the mouth of the Yukon to 18 miles below the community of Galena. Some residents of Galena, Ruby, and Koyukuk wanted drift gillnets to be allowed in Subdistricts 4-B and 4-C. Proponents of expanding drift gillnetting argued that fishers from

Galena and Ruby would not have to travel as far to fish and competition for drift gillnetting spots near Koyukuk would be reduced.

In 2001 the BOF implemented a new subsistence schedule on the Yukon River. This schedule was a response to poor runs and was intended as a conservation measure. The schedule laid out “windows” of allowed fishing time for each district. During these windows, salmon may migrate upriver with reduced exploitation. The schedule intended to reduce harvest early in the run, when there is a much higher level of uncertainty in projecting the total run abundance. Another goal is to distribute the harvest throughout the run, thereby reducing the impact on any particular component of the run, and to spread subsistence harvest opportunities among users along the river. In 2003, the BOF clarified the windows schedule by allowing ADF&G to relax the subsistence schedule in districts where there was not anticipated to be any commercial fishing. Market interests have been lost in many areas of the middle Yukon due to the cost of getting product out of the remote communities.

The 2004 fishing season began with the windows schedule being implemented sequentially on pre-determined dates, based on when salmon historically begin to arrive in a district or subdistrict. In District 1, for example, the windows schedule was implemented on May 31. Once the commercial season opened, the windows schedule reverted to the pre-2001 BOF subsistence fishing schedule, which allowed subsistence fishing to occur 7 days per week, 24 hours per day, except 18 hours prior to, during, and 12 hours after commercial openings in Districts 1, 2, and 3. Because of the unexpected strength of the Chinook and summer chum salmon runs, the windows schedule was not implemented again until the beginning of the fall season (July 16). At that time, the windows schedule went into effect for Districts 1, 2, and 3. The Coastal District and Innoko River remained open 7 days per week. The windowed subsistence fishing schedule was implemented sequentially in the upper Yukon River districts as the salmon migrated into these areas. By mid August, the assessment of the run strength justified relaxing the schedule in accordance with the fall chum salmon management plan.

In 2004, surveyors received many comments, mostly unfavorable, about the windows schedule. Negative comments were primarily received from the Lower Yukon, but scattered negative comments were received from throughout the Yukon Area. Comments included the windows schedule is too restrictive, the windows schedule is a hardship to people with regular work hours, and there is more competition for fishing sites, since everyone in a village has to fish on the same schedule. In general, fishers point out that by restricting fishing times the windows schedule reduces the ability of fishers to adapt to circumstances such as poor weather, water levels, debris in the water, and work schedules. For some fishers, the windows schedule prevents them from catching all their fish at once and stretches out their season. In 2004, some residents commented that the openings were not good for drying fish, as the openings coincided with wet weather. One fisher said that periods are stressful and disrupt traditional ways. A common general comment was that the timing of openings was poor because the fish were not running during the openings. Several fishers complained that ADF&G is constantly changing the windows schedule, so fishers never know when fishing is open. Finally, many fishers are upset and uncertain about why the windows schedule is in place. The surveyors consistently heard comments to the effect that fishers only catch what they need to eat for subsistence and then they stop fishing. Many fishers did not understand why ADF&G regulates their subsistence catch.

This was the second year households were asked to estimate the number of “lost” salmon, by species. “Lost” salmon were harvested but ended up being unusable for either human or dog

consumption. The purpose of this question was to identify salmon harvest that might not usually be reported, as these additional harvest numbers are needed to help meet the survey's goal of estimating the total number of fish killed. When reporting harvest, many fishers think about how many fish they have put away for the winter, so fishers might not report a batch of fish spoiled by weather while drying. "Lost" fish were not included in the household's salmon use numbers in Table 10, since these fish were not usable. Salmon may become unusable for human consumption but may still be suitable for dog food. Since feeding salmon to dogs is a subsistence use, these fish were not counted as lost and are included in the household's use numbers. The survey question aims at collecting numbers of lost fish and does not specifically ask the reason why fish were lost. Because of this, most fish were lost for unknown causes. But when noted, the most common reasons cited included spoilage from weather or flies, predation (e.g. bears and birds), and sick fish (Appendix A12).

Sometimes commercially caught fish are kept for subsistence use and the survey attempts to account for these fish in the total subsistence harvest. Occasionally, a few commercially caught Chinook salmon, often "jacks," are retained for subsistence use. However, most commercially caught salmon kept for subsistence use are summer chum salmon caught in the roe fishery, where the eggs are commercially sold and flesh is kept for subsistence, typically for dog food (Borba and Hamner 2001). From the mid 1970s until the mid 1990s, there was a large roe fishery in the Upper Yukon Area (Districts 4–6). Villages in Subdistrict 4-A and in District 6 on the Tanana River primarily sold summer chum salmon, while Subdistricts 4-B and 4-C and Districts 5 and 6 had a fall chum salmon roe fishery. In 1997, however, poor returns combined with the collapse of the roe market led to the end of most of these fisheries. In 2004, the roe fishery was limited to the fall commercial season in District 6.

However, as described above, in the permit community of Nenana and the Fairbanks area (Subdistricts 6-B, and 6-C), an estimated 3,450 fall chum and 18,649 coho salmon were harvested and sold for the roe. Historically in the Yukon Area roe fishery, fishers extracted and sold pounds of roe to the processors, and the female carcasses were generally kept by fishers for dog food. In 2004, fishers were required to sell the whole fish, as an existing regulation was enforced requiring roe to be processed at an approved plant, preventing the field extraction of roe. The flesh was not marketable due to low value, so following extraction of the roe, the carcasses were returned to fishers for subsistence use, reportedly for dog food. Potentially, a combined 22,099 fall chum and coho salmon could have been returned to fishers. Many of these fishers would have fished for dog food anyway, so if there had not been a commercial roe only fishery, then the total kill likely would have been higher, since the required fish would have been caught during subsistence openings. ADF&G has no means of knowing precisely how many of the fish returned from the commercial roe fishery were in fact used for subsistence. It is possible that some carcasses were simply discarded. To avoid double counting of salmon, efforts were made not to include this commercial harvest, previously documented on fish tickets, with the subsistence harvest reported on Table 1. Even with efforts to avoid double counting salmon, an unknown commercial harvest may still be represented in the reported subsistence permit information for the community of Nenana.

There was an estimated 5,631 dogs in 2004, compared to the 1999–2003 average of 6,512 (Appendix B10). Perhaps reflecting the trend of declining salmon runs, the number of whole salmon fed to dogs in the Yukon Area has noticeably decreased since 1997, the last year of strong salmon runs. In 2004, however, the amount of whole salmon fed to dogs (78,579) was

higher than the recent 5-year average (51,687). In 2004, households fed an estimated 17,448 summer chum, 34,731 fall chum, and 4,711 coho salmon to dogs. These estimates were 17% and 48% higher than the 5-year average for summer and fall chum, respectively, while coho salmon was 7% less (Appendix B10). Chinook salmon are generally not fed to dogs, except for fish that have scarring, are late in the run and thus not suitable for human consumption, or perhaps small “jacks.”

Appendices B1 through B4 document the historical annual subsistence salmon harvest from 1994 to 2004 by species and by community of residence. Chinook and coho salmon subsistence harvests have remained relatively stable over the years, while summer and fall chum salmon harvest declined sharply during the 1998 season. Summer chum salmon has stabilized at a lower harvest level since 1998, while the fall chum salmon harvest improved substantially in both 2003 and 2004. The improvement in run size and consequent relaxation of harvest restrictions did allow for increased subsistence harvests, but subsistence harvests still remained below historic levels. Appendices B5 through B7 document the historical subsistence and personal use harvest from permits, by species and by permit area.

Pink salmon harvest information has been collected in surveyed communities in the Yukon Area since 1994 (Appendix B9). Although pink salmon are often locally abundant in the Lower Yukon Area, they are not typically sought after and harvests remain low. Pink salmon exhibit a low (odd year) and high (even year) abundance 2-year cycle (ADF&G 2002). In 2004, the Pilot Station Sonar estimated a record number of 243,375 pink salmon (McIntosh *In prep*). This number should only be used as an index, since the sonar project does not attempt to estimate the passage of all pink salmon. The 2004 harvest exceeded the recent 5 even-year average of 7,389 fish (Appendix B9). As discussed previously, fishers from the coastal towns of Hooper Bay and Scammon Bay put away pink salmon as a substitute for other salmon species that were unavailable locally this year.

In 2004, the survey included a new question asking for sockeye salmon harvest (Table 12; Appendix B12). Sockeye salmon typically are not found in large numbers in the Yukon River drainage, but this question was introduced because fishers have increasingly reported harvesting sockeye salmon. Unlike harvest of the other salmon species, the sockeye salmon harvest number is only a total of all reported harvest. The sockeye harvest was not expanded to represent the harvest of unsurveyed households because reported harvests might be unreliable due to misidentification. Misidentification of sockeye salmon is a common problem since sockeye salmon are not a primary subsistence fish. Even though sockeye is a salmon species, it was added with the nonsalmon harvest survey question in order to minimize changes to the database.

As with sockeye, the harvest of most nonsalmon species are reported as a total harvest and are not expanded to represent the harvest of non-surveyed households. The exceptions to this are northern pike, whitefish, and inconnu. Since 1995, the survey has attempted to distinguish between large (4 lbs and greater) and small (less than 4 lbs) whitefish harvests. Northern pike, whitefish, and inconnu are estimated because a large amount of the harvest takes place during directed salmon fishing efforts. The expanded harvests may be imprecise because the stratification system used to expand for the total catch is based on a household's historical salmon harvests. The correlation between the level of salmon harvest and the level of nonsalmon harvest has not been determined. In order to improve the harvest estimates of nonsalmon species, additional strata and sampling designs would need to be identified and developed (Borba and Hamner 1998).

Harvest of many nonsalmon species occurs during the late fall and winter, often under the ice. Because the subsistence harvest surveys are conducted in the early fall, the nonsalmon harvests often include fish caught the previous year. For example, Arctic Lamprey *Lampetra camtschatica* is primarily harvested in November and December in Districts 2 and 3 and in the lower portion of District 4. Consequently, the 2003 subsistence lamprey harvest was documented during the 2004 survey.

In 2004 the BOF adopted proposals requiring permits in 2 additional areas in the Yukon River drainage. First, additional waters were opened to subsistence fishing in the upper Koyukuk drainage. Second, the Yukon River Bridge permit area was extended downriver to Garnet Island. This extension included the community of Rampart, which means that Rampart will no longer be visited as part of the postseason subsistence survey. This change was made to facilitate the collection of harvest information from transient fishers who fish near Rampart but live elsewhere. The number of such fishers was expected to increase if the completion of a new road to Rampart led to renewed interest in fishing on the Yukon River.

This was the first year that YRDFA hired residents of each village to assist ADF&G's surveyors. In addition to orienting the surveyors to the village, the YRDFA assistants helped update the household lists. In the past, updating the lists has relied largely on crosschecking ADF&G's list with other government lists, such as the Alaska Permanent Fund Dividend application list. Adults from the other lists that did not show up on our lists were added as potential new households, and surveyors attempted to confirm the households' status. Not only was crosschecking a tedious process, but many of the people added as new households turned out to live in a household previously identified by ADF&G. The YRDFA Assistant program may largely replace ADF&G's reliance on crosschecking other lists, as a local who knows the community can identify new households much more easily and accurately.

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TABLES AND FIGURES

Table 1.—Subsistence and personal use salmon harvest estimates which include commercially related and test fish harvests provided for subsistence use, and related information, Yukon Area, 2004.

Community ^a	Survey Date, Permit Area	Number of Fishing Households ^b	Number of Dogs ^c	Estimated Harvest				Primary Gear Used ^d		
				Chinook	Chum	Chum	Coho	Set	Drift	Fish
Hooper Bay	9/11-13	107	201	1,042	3,242	264	9	48	0	0
Scammon Bay	9/9-10	43	99	996	5,020	56	54	22	0	0
Coastal District Total		150	300	2,038	8,262	320	63	70	0	0
Nunam Iqua ^e	9/9-10	22	65	647	2,698	49	79	16	0	0
Alakanuk ^f	9/7-8	67	137	1,317	6,555	953	207	14	22	0
Emmonak ^f	9/3-6	97	158	2,768	8,618	785	296	14	47	0
Kotlik ^f	9/7-8	67	145	1,148	2,749	280	593	25	10	0
District 1 Subtotal		253	505	5,880	20,620	2,067	1,175	69	79	0
Mountain Village ^f	9/16-17	103	120	2,362	10,676	918	521	11	40	0
Pitkas Point	9/18-19	15	39	609	717	0	0	0	13	0
St. Mary's	9/14-16	87	140	2,357	6,994	104	258	4	39	0
Pilot Station ^f	9/18-20	62	111	2,406	5,779	1,108	296	2	31	0
Marshall	9/22	46	220	1,990	1,765	291	425	2	23	0
District 2 Subtotal		313	630	9,724	25,931	2,421	1,500	19	146	0
Russian Mission	9/25-26	56	135	2,337	884	172	151	6	17	0
Holy Cross	9/20-21	30	57	1,993	276	76	27	6	16	0
Shageluk	9/22-23	17	80	418	1,798	50	106	11	3	0
District 3 Subtotal		103	272	4,748	2,958	298	284	23	36	0
Lower Yukon River Total		669	1,407	20,352	49,509	4,786	2,959	111	261	0
Anvik	9/21-22	16	85	1,588	248	398	288	8	7	0
Grayling	9/23-25	38	64	1,869	1,129	267	233	0	18	0
Kaltag ^f	10/1-2	37	59	1,656	213	687	138	1	13	0
Nulato	10/6-8	71	153	5,199	198	1,246	203	4	23	0
Koyukuk	9/28-10/1	14	47	400	329	344	166	1	10	0
Galena	9/30-10/4	75	314	3,296	782	1,587	1,307	8	16	2
Ruby	10/5-6	15	171	1,620	2,010	1,064	1,540	4	1	5
District 4 Yukon River Subtotal		266	893	15,628	4,909	5,593	3,875	26	88	7
Huslia	10/4-5	16	131	285	3,844	1,139	764	8	0	0
Hughes	10/5-6	8	97	291	3,823	97	110	6	0	0
Allakaket	10/7-8	9	148	65	2,367	968	17	7	0	0
Alatna	10/7-8	1	2	0	16	0	0	1	0	0
Bettles	10/14-17 tele	0	153	0	0	0	0	0	0	0
Koyukuk River Subtotal		34	531	641	10,050	2,204	891	22	0	0
District 4 Subtotal		300	1,424	16,269	14,959	7,797	4,766	48	88	7
Tanana	10/11-13	28	287	2,689	1,490	23,118	1,049	9	0	9
Rampart	permits	2	5	287	103	0	0	2	0	0
Fairbanks NSB ^g	permits	53	244	1,997	280	43	91	52	0	1
Stevens Village ^h	11/28-29, permits	17	74	2,394	108	1,080	100	11	0	0
Birch Creek	10/14-17 tele	2	13	82	0	0	0	1	0	0
Beaver	10/14-17	13	18	858	2	48	0	9	0	0
Fort Yukon	10/18-20	46	345	4,430	1,187	7,302	19	8	0	12
Circle	permits	12	58	565	52	1,022	100	6	0	6
Central	permits	4	6	83	0	0	0	3	0	1
Eagle	permits	29	255	1,512	171	5,482	14	22	0	7
Other ⁱ	permits	6	76	357	3	13	0	7	0	0
District 5 Yukon River Subtotal		212	1,381	15,254	3,396	38,108	1,373	130	0	36
Venetie	10/20-22	13	58	352	15	2,083	5	10	0	1
Chalkyitsik	10/22-23	8	58	60	0	479	45	5	1	0
Chandalar and Black Rivers Subtotal		21	116	412	15	2,562	50	15	1	1
District 5 Subtotal		233	1,497	15,666	3,411	40,670	1,423	145	1	37

-continued-

Table 1.—Page 2 of 2.

Community ^a	Survey Date, Permit Area	Number of Fishing Households ^b	Number of Dogs ^c	Estimated Harvest				Primary Gear Used ^d		
				Chinook	Summer Chum	Fall Chum	Coho	Set Gillnet	Drift Gillnet	Fish Wheels
Manley	permits	5	271	239	296	1,504	1,384	4	0	1
Minto	permits	10	84	35	7	0	5	9	0	0
Nenana	permits	16	374	633	1,171	5,367	6,494	5	0	11
Healy	permits	5	55	0	0	1,058	2,266	5	0	0
Fairbanks NSB ^j	permits	40	124	650	539	1,254	1,668	38	0	2
Other ^k	permits	16	95	32	11	0	0	13	0	1
District 6 Tanana River Subtotal ^l		92	1,003	1,589	2,024	9,183	11,817	74	0	15
Upper Yukon River Total		625	3,924	33,524	20,394	57,650	18,006	267	89	59
Survey Village Subtotal		1,246	3,984	47,701	72,816	44,635	8,205	282	350	29
Subsistence Permit Subtotal ^m		163	1,647	6,189	2,402	15,513	11,789	132	0	29
Subsistence Test Fish Subtotal ⁿ		-	-	1,823	2,716	2,378	801	-	-	-
Subsistence Harvests Subtotal		1,409	5,631	55,713	77,934	62,526	20,795	414	350	58
Personal Use Permit Subtotals		35	-	201	231	230	233	34	0	1
Alaska, Yukon River Total ^o		1,294	5,331	53,876	69,903	62,436	20,965	378	350	59
Alaska, Yukon Area Total		1,444	5,631	55,914	78,165	62,756	21,028	448	350	59
AK, Yukon Area Percentages of the Total		-	-	26%	36%	29%	10%	52%	40%	7%

^a Data collected by Alaska Department of Fish and Game (ADF&G), Division of Commercial Fisheries. Survey data is expanded for number of fishing households, number of dogs, and harvest. Permit data is unexpanded, and is from all permits received as of June 1, 2005.

^b Estimated number of households that fished in surveyed communities or number of permit households who reported fishing in permit required areas.

^c The number of dogs is based on information obtained from survey data estimates or from permits issued.

^d Primary fishing gear is not expanded for households that were not surveyed.

^e Formerly known as Sheldon or Sheldons Point.

^f Test fish have been added to the total fish harvested in a village as reported in the postseason survey.

^g Fairbanks North Star Borough (FNSB) households that obtained a permit and indicated they fished in the Yukon River permit required area.

^h Permit harvest information from Stevens Village residents was used to complement the information obtained by the survey.

ⁱ Other includes residents of Manley, Minto, Tanana, and the Upper Tanana River drainage villages of Northway and Tok who obtained a household permit and fished in a Yukon River permit required area.

^j Fairbanks North Star Borough (FNSB) households that obtained a subsistence and/or personal use permit and indicated they fished in the Tanana River permit required area.

^k Other includes residents of Eagle River, Denali Park, Gakona, Paxson, Wiseman and the Upper Tanana River drainage villages of Delta Junction, Dot Lake, Tanacross, Tok, and Northway who obtained a permit and fished in the Tanana River.

^l Does not include harvest of coho and chum salmon sold commercially for roe and carcass returned to fishermen for dog food in Subdistrict 6-B.

^m Subsistence permit subtotal does not include Stevens Village.

ⁿ Test fish given away for subsistence use.

^o Does not include Coastal District.

Table 2.—Estimated number of households with dogs, number of households that feed fish to dogs, numbers of dogs, and corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2004.

Community	Total Households	Households Contacted	Number of Households with Dogs		Number of Households that Feed Fish to Dogs		Number of Dogs	
			Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)
Hooper Bay	193	74	103	21	1	1	201	68
Scammon Bay	82	33	48	14	1	1	99	38
Coastal District	275	107	151	25	2	5	300	78
Nunam Iqua	32	21	28	2	2	2	65	12
Alakanuk	124	57	69	15	6	6	137	30
Emmonak	161	86	91	13	3	1	158	27
Kotlik	87	41	47	16	5	1	145	141
District 1	404	205	235	26	16	7	505	148
Mountain Village	142	59	74	19	1	1	120	25
Pitkas Point	25	20	15	1	0	0	39	10
St. Mary's	108	49	73	15	11	11	140	35
Pilot Station	95	46	51	11	0	0	111	30
Marshall	72	32	57	10	3	1	220	103
District 2	442	206	270	28	15	11	630	116
Russian Mission	61	25	42	12	6	6	135	29
Holy Cross	48	29	30	7	3	2	57	15
Shageluk	29	19	25	2	8	3	80	11
District 3	138	73	97	14	17	6	272	34
Anvik	31	27	24	2	3	1	85	12
Grayling	44	21	21	8	4	2	64	21
Kaltag	57	19	43	10	2	0	59	17
Nulato	87	30	70	12	0	0	153	41
Koyukuk	24	20	10	2	2	0	47	3
Galena	160	45	116	20	1	0	314	143
Ruby	61	25	38	11	8	8	171	114
Huslia	74	19	50	14	5	1	131	30
Hughes	22	13	13	4	7	3	97	18
Allakaket	46	18	25	11	6	5	148	40
Alatna	5	4	2	0	0	0	2	0
Bettles	20	10	9	4	0	0	153	127
District 4	631	251	421	35	38	10	1,424	235
Tanana	90	44	56	10	21	8	287	54
Stevens Village	30	12	23	8	2	0	74	29
Birch Creek	9	3	3	4	0	0	13	19
Beaver	30	17	15	4	1	1	18	5
Fort Yukon	161	44	105	23	24	13	345	120
Venetie	35	26	24	4	7	2	58	7
Chalkyitsik	29	19	15	4	4	2	58	38
District 5	384	165	241	28	59	16	853	142
Survey Totals	2,274	1,007	1,415	65	147	23	3,984	343

Table 3.—Household and dog information reported by subsistence and personal use permits issued, listed by fishery and by community of residence, Yukon Area, 2004.

Community	Permit Information ^a				Reported Household Information (based on permits issued)					
	Permits		Percent Returned	Numbers of Permits Returned that Fished	Number of People	Number of Fishermen	Number of Households with Dogs	Number of Dogs	Number of Households Feeding Whole Salmon to Dogs	Number of Whole Salmon Fed to Dogs
	Issued	Returned								
Subsistence Permits										
Central	4	4	100%	4	10	6	3	6	1	0
Circle	25	20	80%	12	62	37	18	58	10	1,080
Eagle	48	48	100%	29	109	74	37	255	23	2,348
Rampart ^b	5	3	60%	2	25	19	2	5	1	0
Fairbanks (FNSB) ^c	169	159	94%	99	455	325	52	368	18	2,277
Healy	7	7	100%	5	18	17	5	55	5	3,500
Manley	14	14	100%	6	31	25	12	273	10	2,928
Minto	36	32	89%	11	140	69	18	115	12	2
Nenana	29	28	97%	16	94	48	26	374	21	9,553
Stevens Village ^d	4	4	100%	4	15	7	3	6	2	0
Upper Tanana Villages ^e	37	32	86%	15	123	79	26	74	2	0
Other ^f	13	11	85%	7	37	24	10	64	5	1
Subsistence Permit Subtotal	391	362	93%	210	1,119	730	212	1,653	110	21,689
Personal Use Permits										
Fairbanks (FNSB) ^g	71	68	96%	36	206	119	-	-	-	-
Personal Use Permit Subtotal	71	68	96%	36	206	119	-	-	-	-
Permit Totals	462	430	93%	246	1,325	849	212	1,653	110	21,689

^a Permits returned as of June 1, 2005.

^b In 2004, first year to include the village of Rampart in the Yukon River permit area.

^c Fairbanks North Star Borough (FNSB) includes residents from the communities of Ester, Fairbanks, North Pole, Salcha, and Two Rivers.

^d Stevens Village is a surveyed village, but many residents fish in permit areas. Therefore this permit information is not included in any final harvest estimate to avoid double counting.

^e Upper Tanana Villages include residents from the communities of Delta Junction, Dot Lake, Northway, Tanacross, and Tok.

^f Includes residents of Denali Park, Eagle River, Gakona, Paxson, and Wiseman who also applied for a subsistence household permit.

^g Includes personal use household permits from FNSB and Delta Junction.

Table 4.—Estimated number of salmon retained for dog food from subsistence harvests with corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2004.

Community	Total Households	Households Contacted ^b	Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon ^a
			Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated
			Total	(+/-)	Total	(+/-)	Total	(+/-)	Total
Hooper Bay	193	69	0	0	0	0	0	0	0
Scammon Bay	82	31	13	11	0	0	0	0	13
Coastal District	275	100	13	11	0	0	0	0	13
Nunam Iqua	32	20	40	50	0	0	0	0	40
Alakanuk	124	54	309	523	0	0	0	0	309
Emmonak	161	76	18	12	0	0	0	0	18
Kotlik	87	40	68	18	21	11	0	0	89
District 1	404	190	435	526	21	11	0	0	456
Mountain Village	142	55	91	74	0	0	0	0	91
Pitkas Point	25	20	0	0	0	0	0	0	0
St. Mary's	95	36	730	896	10	11	10	11	750
Pilot Station	108	41	0	0	0	0	0	0	0
Marshall	72	31	209	85	52	21	366	129	627
District 2	442	183	1,030	903	62	24	376	129	1,468
Russian Mission	61	23	177	165	0	0	0	0	177
Holy Cross	48	25	73	75	0	0	0	0	73
Shageluk	29	18	978	424	0	0	0	0	978
District 3	138	66	1,228	461	0	0	0	0	1,228
Anvik	31	24	0	0	364	59	206	0	570
Grayling	44	19	793	588	214	224	0	0	1,007
Kaltag	57	16	150	0	58	11	15	0	223
Nulato	87	21	0	0	0	0	0	0	0
Koyukuk	24	20	225	0	211	0	102	0	538
Galena	160	42	0	0	0	0	223	195	223
Ruby	61	18	2,491	2,815	966	1,128	1,840	887	5,297
Huslia	74	19	3,505	1,519	1,021	515	763	421	5,289
Hughes	22	15	3,823	2,934	83	62	83	53	3,989
Allakaket	46	17	1,621	240	465	0	0	0	2,086
Alatna	5	4	0	0	0	0	0	0	0
Bettles	20	10	0	0	0	0	0	0	0
District 4	631	225	12,608	4,387	3,382	1,263	3,232	1,003	19,222
Tanana	90	44	1,389	470	22,337	6,445	938	761	24,664
Stevens Village	30	10	0	0	240	0	100	0	340
Birch Creek	9	3	0	0	0	0	0	0	0
Beaver	30	15	0	0	12	10	0	0	12
Fort Yukon	161	41	745	792	6,972	3,208	20	28	7,737
Venetie	35	21	0	0	1,226	95	0	0	1,226
Chalkyitsik	29	18	0	0	479	496	45	51	524
District 5	384	152	2,134	921	31,266	7,217	1,103	763	34,503
Survey Totals	2,274	916	17,448	4,625	34,731	7,327	4,711	1,267	56,890

^a Does not include an undetermined amount of Chinook salmon not fit for human consumption but possibly fed to dogs.

^b The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 5.—Estimated number of salmon retained for dog food from commercial harvests with corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2004.

Community	Total Households	Households Contacted ^b	Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon ^a
			Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total
Hooper Bay	193	69	0	0	0	0	0	0	0
Scammon Bay	82	31	0	0	0	0	0	0	0
Coastal District	275	100	0	0	0	0	0	0	0
Nunam Iqua	32	20	0	0	0	0	0	0	0
Alakanuk	124	53	0	0	0	0	0	0	0
Emmonak	161	77	99	85	0	0	0	0	99
Kotlik	87	40	0	0	0	0	0	0	0
District 1	404	190	99	85	0	0	0	0	99
Mountain Village	142	55	0	0	0	0	0	0	0
Pitkas Point	25	20	0	0	0	0	0	0	0
St. Mary's	108	41	0	0	0	0	0	0	0
Pilot Station	95	36	0	0	0	0	0	0	0
Marshall	72	31	84	34	0	0	0	0	84
District 2	442	183	84	34	0	0	0	0	84
Russian Mission	61	23	0	0	0	0	0	0	0
Holy Cross	48	25	0	0	0	0	0	0	0
Shageluk	29	18	0	0	0	0	0	0	0
District 3	138	66	0	0	0	0	0	0	0
Anvik	31	24	0	0	0	0	0	0	0
Grayling	44	19	0	0	0	0	0	0	0
Kaltag	57	17	0	0	0	0	0	0	0
Nulato	87	21	0	0	0	0	0	0	0
Koyukuk	24	20	0	0	0	0	0	0	0
Galena	160	42	0	0	0	0	0	0	0
Ruby	61	18	0	0	0	0	0	0	0
Huslia	74	18	0	0	0	0	0	0	0
Hughes	22	15	0	0	0	0	0	0	0
Allakaket	46	16	0	0	0	0	0	0	0
Alatna	5	4	0	0	0	0	0	0	0
Bettles	20	10	0	0	0	0	0	0	0
District 4	631	224	0	0	0	0	0	0	0
Tanana	90	44	0	0	0	0	0	0	0
Stevens Village	30	10	0	0	0	0	0	0	0
Birch Creek	9	3	0	0	0	0	0	0	0
Beaver	30	15	0	0	0	0	0	0	0
Fort Yukon	161	41	0	0	0	0	0	0	0
Venetie	35	21	0	0	0	0	0	0	0
Chalkyitsik	29	17	0	0	0	0	0	0	0
District 5	384	151	0	0	0	0	0	0	0
Survey Totals	2,274	914	183	91	0	0	0	0	183

^a Does not include an undetermined amount of Chinook salmon not fit for human consumption but possibly fed to dogs.

^b The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 6.—Estimated total number of households, sample size, number contacted, and percentage of sampled households that were contacted in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Community Totals ^a			
	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C	N	n	C	%C
Hooper Bay	-	-	-	-	74	22	19	86%	71	22	18	82%	44	44	37	84%	4	4	4	100%	193	92	78	85%
Scammon Bay	1	1	-	-	23	7	7	100%	38	12	10	83%	20	20	17	85%	-	-	-	-	82	40	34	85%
Coastal District	1	1	0	0%	97	29	26	90%	109	34	28	82%	64	64	54	84%	4	4	4	100%	275	132	112	85%
Nunam Iqua	-	-	-	-	5	5	4	80%	6	5	4	80%	20	20	14	70%	1	1	1	100%	32	31	23	74%
Alakanuk	1	1	-	-	42	13	13	100%	45	14	12	86%	36	36	34	94%	-	-	-	-	124	64	59	92%
Emmonak	3	3	-	-	68	34	25	74%	40	20	16	80%	47	47	45	96%	3	3	2	67%	161	107	88	82%
Kotlik	-	-	-	-	26	8	6	75%	29	9	6	67%	29	29	27	93%	3	3	3	100%	87	49	42	86%
District 1	4	4	0	0%	141	60	48	80%	120	48	38	79%	132	132	120	91%	7	7	6	86%	404	251	212	84%
Mountain Village	-	-	-	-	44	13	9	69%	50	15	9	60%	46	46	41	89%	2	2	2	100%	142	76	61	80%
Pitkas Point	1	1	1	100%	5	5	5	100%	4	4	4	100%	14	14	12	86%	1	1	0	0%	25	25	22	88%
St. Mary's	-	-	-	-	32	10	9	90%	37	11	9	82%	32	32	29	91%	7	7	6	86%	108	60	53	88%
Pilot Station	-	-	-	-	37	19	15	79%	34	17	14	82%	23	23	17	74%	1	1	1	100%	95	60	47	78%
Marshall	-	-	-	-	19	6	4	67%	30	9	6	67%	23	23	22	96%	-	-	-	-	72	38	32	84%
District 2	1	1	1	100%	137	53	42	79%	155	56	42	75%	138	138	121	88%	11	11	9	82%	442	259	215	83%
Russian Mission	-	-	-	-	20	6	4	67%	27	9	8	89%	14	14	14	100%	-	-	-	-	61	29	26	90%
Holy Cross	-	-	-	-	12	6	4	67%	16	8	9	113%	19	19	16	84%	1	1	1	100%	48	34	30	88%
Shageluk	-	-	-	-	5	5	2	40%	11	11	8	73%	7	6	5	83%	6	6	5	83%	29	28	20	71%
District 3	0	0	0	0%	37	17	10	59%	54	28	25	89%	40	39	35	90%	7	7	6	86%	138	91	76	84%
Anvik	-	-	-	-	11	11	10	91%	13	13	12	92%	5	5	5	100%	2	2	2	100%	31	31	29	94%
Grayling	-	-	-	-	8	3	2	67%	19	6	5	83%	14	14	13	93%	3	3	2	67%	44	26	22	85%
Kaltag	1	1	-	-	11	4	3	75%	39	12	11	92%	5	5	5	100%	1	1	1	100%	57	23	20	87%
Nulato	-	-	-	-	36	11	9	82%	36	11	9	82%	14	14	12	86%	1	1	1	100%	87	37	31	84%
Koyukuk	-	-	-	-	7	7	5	71%	11	11	10	91%	3	3	3	100%	3	3	3	100%	24	24	21	88%
Galena	2	2	1	50%	92	28	19	68%	51	16	13	81%	10	10	8	80%	5	5	5	100%	160	61	46	75%
Ruby	-	-	-	-	42	13	11	85%	8	3	3	100%	7	7	7	100%	4	4	4	100%	61	27	25	93%
Huslia	-	-	-	-	46	14	7	50%	17	6	4	67%	7	7	5	71%	4	3	3	100%	74	30	19	63%
Hughes	-	-	-	-	6	6	4	67%	9	8	7	88%	4	4	3	75%	3	2	2	100%	22	20	16	80%
Allakaket	-	-	-	-	27	9	7	78%	12	4	4	100%	1	1	1	100%	6	6	6	100%	46	20	18	90%
Alatna	-	-	-	-	3	3	2	67%	2	2	2	100%	-	-	-	-	-	-	-	-	5	5	4	80%
Bettles	1	1	-	-	18	14	10	71%	1	1	-	-	-	-	-	-	-	-	-	-	20	16	10	63%
District 4	4	4	1	25%	307	123	89	72%	218	93	80	86%	70	70	62	89%	32	30	29	97%	631	320	261	82%
Tanana	-	-	-	-	54	27	23	85%	18	9	7	78%	6	6	5	83%	12	12	11	92%	90	54	46	85%
Stevens Village	1	1	-	-	9	8	4	50%	12	10	5	50%	6	6	5	83%	2	2	2	100%	30	27	16	59%
Birch Creek	-	-	-	-	4	4	1	25%	5	5	3	60%	-	-	-	-	-	-	-	-	9	9	4	44%
Beaver	4	4	-	-	10	9	6	67%	10	8	6	75%	6	6	5	83%	-	-	-	-	30	27	17	63%
Fort Yukon	-	-	-	-	103	31	22	71%	34	11	7	64%	16	16	14	88%	8	8	7	88%	161	66	50	76%
Venetie	1	1	-	-	21	21	14	67%	9	9	9	100%	2	2	2	100%	2	2	2	100%	35	35	27	77%
Chalkyitsik	-	-	-	-	21	21	13	62%	6	6	5	83%	2	2	1	50%	-	-	-	-	29	29	19	66%
District 5	6	6	0	0%	222	121	83	69%	94	58	42	72%	38	38	32	84%	24	24	22	92%	384	247	179	72%
Survey Totals	16	16	2	13%	941	403	298	74%	750	317	255	80%	482	481	424	88%	85	83	76	92%	2,274	1,300	1,055	81%

Note: Households contacted (C) may include some households not pre-selected resulting in a household contacted percentage (%C) greater than 100%.

^a Total number of households (N), the sample size (n), the number of households contacted (C), and the percent of the sampled households that were contacted (%C).

Table 7.—Estimated number of subsistence fishing households in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester			Medium Harvester			Heavy Harvester				Combined ^a					
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	Est CI (95%)				
																				N	n	Total	(+/-)	
Hooper Bay	-	-	-	-	74	19	0.5	0.1	71	18	0.4	0.1	44	37	0.7	0.0	4	4	1.0	0.0	193	78	107	21
Scammon Bay	1	0	-	-	23	7	0.3	0.2	38	10	0.5	0.1	20	17	0.9	0.0	-	-	-	-	82	34	43	13
Coastal District	1	0	0.0	0.0	97	26	0.5	0.1	109	28	0.5	0.1	64	54	0.8	0.0	4	4	1.0	0.0	275	112	150	24
Nunam Iqua	-	-	-	-	5	4	0.3	0.1	6	4	0.5	0.2	20	14	0.9	0.1	1	1	1.0	0.0	32	23	22	5
Alakanuk	1	0	-	-	42	13	0.3	0.1	45	12	0.6	0.1	36	34	0.8	0.0	-	-	-	-	124	59	67	15
Emmonak	3	0	-	-	68	25	0.3	0.1	40	16	0.8	0.1	47	45	0.8	0.0	3	2	1.0	0.0	161	88	97	12
Kotlik	-	-	-	-	26	6	0.7	0.2	29	6	0.7	0.2	29	27	0.9	0.0	3	3	1.0	0.0	87	42	67	14
District 1	4	0	0.0	0.0	141	48	0.4	0.1	120	38	0.7	0.1	132	120	0.8	0.0	7	6	1.0	0.0	404	212	253	24
Mountain Village	-	-	-	-	44	9	0.4	0.2	50	9	0.8	0.1	46	41	0.9	0.0	2	2	1.0	0.0	142	61	103	19
Pitkas Point	1	1	1.0	0.0	5	5	0.2	0.0	4	4	0.5	0.0	14	12	0.8	0.0	1	0	-	-	25	22	15	1
St. Mary's	-	-	-	-	32	9	0.6	0.1	37	9	0.9	0.1	32	29	0.9	0.0	7	6	1.0	0.0	108	53	87	12
Pilot Station	-	-	-	-	37	15	0.3	0.1	34	14	0.8	0.1	23	17	0.9	0.0	1	1	1.0	0.0	95	47	62	9
Marshall	-	-	-	-	19	4	0.0	0.0	30	6	0.8	0.1	23	22	0.9	0.0	-	-	-	-	72	32	46	9
District 2	1	1	1.0	0.0	137	42	0.4	0.1	155	42	0.8	0.1	138	121	0.9	0.0	11	9	1.0	0.0	442	215	313	26
Russian Mission	-	-	-	-	20	4	1.0	0.0	27	8	0.9	0.1	14	14	0.9	0.0	-	-	-	-	61	26	56	6
Holy Cross	-	-	-	-	12	4	0.0	0.0	16	9	0.8	0.1	19	16	0.9	0.0	1	1	1.0	0.0	48	30	30	3
Shageluk	-	-	-	-	5	2	0.0	0.0	11	8	0.5	0.1	7	5	0.8	0.1	6	5	1.0	0.0	29	20	17	3
District 3	0	0	0.0	0.0	37	10	0.5	0.0	54	25	0.8	0.1	40	35	0.9	0.0	7	6	1.0	0.0	138	76	103	7
Anvik	-	-	-	-	11	10	0.0	0.0	13	12	0.8	0.0	5	5	0.8	0.0	2	2	1.0	0.0	31	29	16	1
Grayling	-	-	-	-	8	2	1.0	0.0	19	5	0.8	0.2	14	13	0.8	0.0	3	2	1.0	0.0	44	22	38	6
Kaltag	1	0	-	-	11	3	0.0	0.0	39	11	0.8	0.1	5	5	0.8	0.0	1	1	1.0	0.0	57	20	37	8
Nulato	-	-	-	-	36	9	0.7	0.1	36	9	0.9	0.1	14	12	1.0	0.0	1	1	1.0	0.0	87	31	71	12
Koyukuk	-	-	-	-	7	5	0.0	0.0	11	10	0.7	0.0	3	3	1.0	0.0	3	3	1.0	0.0	24	21	14	1
Galena	2	1	1.0	0.0	92	19	0.2	0.1	51	13	0.8	0.1	10	8	1.0	0.0	5	5	0.8	0.0	160	46	75	19
Ruby	-	-	-	-	42	11	0.0	0.0	8	3	1.0	0.0	7	7	0.4	0.0	4	4	1.0	0.0	61	25	15	0
Huslia	-	-	-	-	46	7	0.1	0.1	17	4	0.0	0.0	7	5	0.8	0.1	4	3	1.0	0.0	74	19	16	12
Hughes	-	-	-	-	6	4	0.0	0.0	9	7	0.3	0.1	4	3	0.7	0.2	3	2	1.0	0.0	22	16	8	2
Allakaket	-	-	-	-	27	7	0.0	0.0	12	4	0.3	0.2	1	1	0.0	-	6	6	1.0	0.0	46	18	9	5
Alatna	-	-	-	-	3	2	0.0	0.0	2	2	0.5	0.0	-	-	-	-	-	-	-	-	5	4	1	0
Bettles	1	0	-	-	18	10	0.0	0.0	1	0	-	-	-	-	-	-	-	-	-	-	20	10	0	0
District 4	4	1	1.0	0.0	307	89	0.2	0.0	218	80	0.7	0.0	70	62	0.8	0.0	32	29	1.0	0.0	631	261	300	28
Tanana	-	-	-	-	54	23	0.3	0.1	18	7	0.0	0.0	6	5	0.6	0.1	12	11	0.8	0.0	90	46	28	8
Stevens Village	1	0	-	-	9	4	0.3	0.2	12	5	0.6	0.2	6	5	1.0	0.0	2	2	1.0	0.0	30	16	17	5
Birch Creek	-	-	-	-	4	1	0.0	-	5	3	0.3	0.2	-	-	-	-	-	-	-	-	9	4	2	2
Beaver	4	0	-	-	10	6	0.0	0.0	10	6	0.8	0.1	6	5	0.8	0.1	-	-	-	-	30	17	13	2
Fort Yukon	-	-	-	-	103	22	0.2	0.1	34	7	0.3	0.2	16	14	0.7	0.0	8	7	0.7	0.1	161	50	46	19
Venetie	1	0	-	-	21	14	0.1	0.1	9	9	0.8	0.0	2	2	0.5	0.0	2	2	1.0	0.0	35	27	13	2
Chalkyitsik	-	-	-	-	21	13	0.2	0.1	6	5	0.8	0.1	2	1	0.0	-	-	-	-	-	29	19	8	3
District 5	6	0	0.0	0.0	222	83	0.2	0.0	94	42	0.4	0.1	38	32	0.7	0.0	24	22	0.8	0.0	384	179	127	21
Survey Totals	16	2	1.0	-	941	298	0.3	0.0	750	255	0.7	0.0	482	424	0.8	0.0	85	76	0.9	0.0	2,274	1,055	1,246	56

^a The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%). Dashes indicate indefinable values.

Table 8.—Estimated number of people in households in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined ^a			
	N	n	mean	SE	N	n	mean	SE	N	n	mean	SE	N	n	mean	SE	N	n	mean	SE	Total N	Est n	Total	CI (95%) (+/-)
Hooper Bay	-	-	-	-	74	18	5.1	0.5	71	18	5.4	0.6	44	36	5.3	0.2	4	4	7.0	0.0	193	76	1,022	115
Scammon Bay	1	0	-	-	23	6	5.8	1.1	38	10	5.4	0.7	20	17	6.8	0.2	-	-	-	-	82	33	475	72
Coastal District	1	0	0.0	0.0	97	24	5.3	0.5	109	28	5.4	0.5	64	53	5.8	0.2	4	4	7.0	0.0	275	109	1,497	135
Nunam Iqua	-	-	-	-	5	4	3.0	0.3	6	4	5.3	0.1	20	14	5.9	0.3	1	1	5.0	0.0	32	23	170	13
Alakanuk	1	0	-	-	42	13	3.1	0.4	45	11	5.7	0.7	36	34	4.7	0.1	-	-	-	-	124	58	555	71
Emmonak	3	0	-	-	68	25	3.5	0.4	40	15	4.6	0.5	47	41	4.5	0.1	3	2	2.5	0.3	161	83	644	64
Kotlik	-	-	-	-	26	5	3.4	0.9	29	6	7.5	1.2	29	27	5.6	0.1	3	3	4.0	0.0	87	41	480	84
District 1	4	0	0.0	0.0	141	47	3.3	0.3	120	36	5.8	0.4	132	116	5.0	0.1	7	6	3.5	0.1	404	205	1,849	128
Mountain Village	-	-	-	-	44	9	4.6	1.0	50	9	4.4	0.8	46	39	6.3	0.1	2	2	4.5	0.0	142	59	721	118
Pitkas Point	1	1	6.0	0.0	5	5	2.2	0.0	4	4	5.8	0.0	14	12	4.9	0.2	1	0	-	-	25	22	109	5
St. Mary's	-	-	-	-	32	9	3.2	0.6	37	9	4.0	0.6	32	29	4.0	0.1	7	6	4.7	0.2	108	53	411	56
Pilot Station	-	-	-	-	37	15	5.2	0.5	34	14	5.6	0.5	23	17	5.6	0.3	1	1	6.0	0.0	95	47	519	51
Marshall	-	-	-	-	19	4	4.3	2.1	30	6	4.3	0.6	23	22	5.0	0.1	-	-	-	-	72	32	325	86
District 2	1	1	6.0	0.0	137	42	4.3	0.5	155	42	4.6	0.3	138	119	5.3	0.1	11	9	4.8	0.1	442	213	2,085	164
Russian Mission	-	-	-	-	20	4	7.0	0.9	27	7	5.3	0.9	14	14	5.1	0.0	-	-	-	-	61	25	355	57
Holy Cross	-	-	-	-	12	4	2.3	0.6	16	9	3.0	0.5	19	15	4.5	0.2	1	1	2.0	0.0	48	29	162	22
Shageluk	-	-	-	-	5	2	3.0	0.8	11	8	3.6	0.4	7	5	3.0	0.4	6	5	3.8	0.3	29	20	99	14
District 3	0	0	0.0	0.0	37	10	4.9	0.5	54	24	4.3	0.5	40	34	4.4	0.1	7	6	3.5	0.2	138	74	616	63
Anvik	-	-	-	-	11	10	2.1	0.2	13	11	3.9	0.2	5	5	3.6	0.0	2	2	1.0	0.0	31	28	94	7
Grayling	-	-	-	-	8	2	6.0	0.9	19	5	3.8	1.0	14	13	4.5	0.1	3	2	2.5	0.3	44	22	191	40
Kaltag	1	0	-	-	11	3	1.3	0.3	39	11	3.8	0.3	5	5	3.6	0.0	1	1	4.0	0.0	57	20	186	25
Nulato	-	-	-	-	36	9	2.9	0.5	36	9	4.0	0.3	14	11	3.4	0.2	1	1	3.0	0.0	87	30	298	43
Koyukuk	-	-	-	-	7	5	2.0	0.2	11	10	1.7	0.1	3	3	4.3	0.0	3	3	3.3	0.0	24	21	56	4
Galena	2	1	5.0	0.0	92	19	2.4	0.3	51	12	2.8	0.4	10	8	3.3	0.2	5	5	2.8	0.0	160	45	419	66
Ruby	-	-	-	-	42	11	2.3	0.4	8	3	2.7	0.5	7	7	3.1	0.0	4	4	2.5	0.0	61	25	149	35
Huslia	-	-	-	-	46	7	2.0	0.3	17	4	4.3	1.0	7	5	3.4	0.4	4	3	4.0	0.3	74	19	204	43
Hughes	-	-	-	-	6	4	2.0	0.4	9	7	2.6	0.2	4	3	3.7	0.6	3	2	5.0	0.0	22	16	65	7
Allakaket	-	-	-	-	27	7	1.7	0.5	12	4	3.0	0.6	1	1	5.0	0.0	6	6	4.2	0.0	46	18	112	29
Alatna	-	-	-	-	3	2	1.0	0.0	2	2	2.5	0.0	-	-	-	-	-	-	-	-	5	4	8	0
Bettles	1	0	-	-	18	10	1.6	0.1	1	0	-	-	-	-	-	-	-	-	-	-	20	10	29	5
District 4	4	1	5.0	0.0	307	89	2.3	0.1	218	78	3.4	0.2	70	61	3.7	0.1	32	29	3.3	0.0	631	258	1,811	112
Tanana	-	-	-	-	54	23	2.1	0.2	18	7	2.6	0.5	6	5	2.6	0.1	12	11	2.8	0.2	90	46	211	30
Stevens Village	1	0	-	-	9	4	1.3	0.2	12	5	3.4	0.8	6	3	4.7	0.5	2	2	5.5	0.0	30	14	91	20
Birch Creek	-	-	-	-	4	1	2.0	0.0	5	3	2.3	0.6	-	-	-	-	-	-	-	-	9	4	20	5
Beaver	4	0	-	-	10	6	2.3	0.4	10	6	1.7	0.2	6	5	2.2	0.1	-	-	-	-	30	17	53	9
Fort Yukon	-	-	-	-	103	22	2.7	0.4	34	6	3.8	0.6	16	14	2.4	0.2	8	6	3.0	0.3	161	48	474	90
Venetie	1	0	-	-	21	13	2.2	0.2	9	8	3.6	0.2	2	2	4.0	0.0	2	1	6.0	0.0	35	24	99	8
Chalkyitsik	-	-	-	-	21	13	2.2	0.2	6	5	3.4	0.3	2	1	2.0	0.0	-	-	-	-	29	19	70	9
District 5	6	0	0.0	0.0	222	82	2.4	0.2	94	40	3.2	0.3	38	30	2.8	0.1	24	20	3.4	0.1	384	172	1,018	98
Survey Totals	16	2	5.3	-	941	294	3.2	0.1	750	248	4.3	0.1	482	413	4.8	0.0	85	74	3.7	0.1	2,274	1,031	8,876	296

^a The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Table 9.—Subsistence salmon harvest estimates including commercially retained (not including test fish) and corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2004.

Community	Total Households	Households Contacted ^a	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
			Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total
Hooper Bay	193	77	1,042	1,338	3,242	1,606	264	168	9	14	4,557
Scammon Bay	82	31	996	313	5,020	1,956	56	27	54	25	6,126
Coastal District	275	108	2,038	1,375	8,262	2,531	320	170	63	29	10,683
Nunam Iqua	32	21	647	255	2,698	636	49	31	79	43	3,473
Alakanuk	124	58	1,292	415	6,455	2,155	953	1,394	207	131	8,907
Emmonak	161	85	1,725	473	7,925	1,131	275	114	201	87	10,126
Kotlik	87	42	1,058	219	2,674	550	155	50	536	157	4,423
District 1	404	206	4,722	713	19,752	2,575	1,432	1,400	1,023	226	26,929
Mountain Village	142	59	2,362	658	10,676	2,673	493	85	236	33	13,767
Pitkas Point	25	20	609	127	717	156	0	0	0	0	1,326
St. Mary's	108	50	2,357	484	6,994	1,469	104	37	258	208	9,713
Pilot Station	95	46	1,741	447	3,931	915	382	210	60	43	6,114
Marshall	72	32	1,990	551	1,765	457	291	56	425	130	4,471
District 2	442	207	9,059	1,089	24,083	3,221	1,270	236	979	251	35,391
Russian Mission	61	25	2,337	776	884	414	172	174	151	151	3,544
Holy Cross	48	29	1,993	246	276	65	76	32	27	20	2,372
Shageluk	29	19	418	108	1,798	469	50	38	106	103	2,372
District 3	138	73	4,748	821	2,958	629	298	181	284	184	8,288
Anvik	31	26	1,588	231	248	20	398	0	288	5	2,522
Grayling	44	22	1,869	600	1,129	787	267	117	233	69	3,498
Kaltag	57	19	1,656	517	213	20	95	0	10	0	1,974
Nulato	87	28	5,199	1,100	198	164	1,246	806	203	157	6,846
Koyukuk	24	21	400	40	329	2	344	0	166	1	1,239
Galena	160	45	3,296	1,085	782	420	1,587	576	1,307	1,524	6,972
Ruby	61	21	1,620	477	2,010	256	1,064	252	1,540	640	6,234
Huslia	74	19	285	153	3,844	1,477	1,139	522	764	421	6,032
Hughes	22	16	291	229	3,823	2,934	97	58	110	50	4,321
Allakaket	46	17	65	0	2,367	480	968	96	17	0	3,417
Alatna	5	4	0	0	16	0	0	0	0	0	16
Bettles	20	10	0	0	0	0	0	0	0	0	0
District 4	631	248	16,269	1,837	14,959	3,451	7,205	1,160	4,638	1,716	43,071
Tanana	90	45	2,689	490	1,490	528	23,118	6,532	1,049	772	28,346
Stevens Village	30	14	2,394	1,310	108	183	1,080	0	100	0	3,682
Birch Creek	9	4	82	101	0	0	0	0	0	0	82
Beaver	30	17	858	281	2	2	48	38	0	0	908
Fort Yukon	161	45	4,430	1,935	1,187	1,093	7,302	2,060	19	14	12,938
Venetie	35	24	352	129	15	0	2,083	262	5	0	2,455
Chalkyitsik	29	18	60	39	0	0	479	496	45	51	584
District 5	384	167	10,865	2,410	2,802	1,228	34,110	6,872	1,218	774	48,995
Survey Totals	2,274	1,009	47,701	3,666	72,816	6,101	44,635	7,116	8,205	1,921	173,357

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 10.—Estimated number of salmon used for subsistence purposes and corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2004.

Community			Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
	Total Households	Households Contacted ^a	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total	CI (95%) (+/-)	Estimated Total
Hooper Bay	193	77	899	1,334	2,556	1,427	264	168	9	14	3,728
Scammon Bay	82	31	872	242	4,072	1,416	56	27	54	25	5,054
Coastal District	275	108	1,771	1,355	6,628	2,011	320	170	63	29	8,782
Nunam Iqua	32	21	645	252	2,661	630	49	31	79	43	3,434
Alakanuk	124	58	1,251	414	6,200	2,149	885	1,259	207	131	8,543
Emmonak	161	85	1,558	470	7,200	1,117	198	95	184	86	9,140
Kotlik	87	42	942	216	2,276	465	92	38	474	156	3,784
District 1	404	206	4,396	709	18,337	2,545	1,224	1,264	944	225	24,901
Mountain Village	142	59	1,976	496	9,350	2,691	340	64	155	32	11,821
Pitkas Point	25	20	491	100	678	156	0	0	0	0	1,169
St. Mary's	108	50	2,114	369	6,401	1,456	104	37	210	169	8,829
Pilot Station	95	46	1,623	417	3,393	798	382	210	60	43	5,458
Marshall	72	32	1,648	385	1,649	397	265	51	423	130	3,985
District 2	442	207	7,852	845	21,471	3,191	1,091	228	848	220	31,262
Russian Mission	61	25	2,140	755	848	417	172	174	151	151	3,311
Holy Cross	48	29	1,690	251	254	64	61	29	27	20	2,032
Shageluk	29	19	404	108	1,724	439	49	37	101	97	2,278
District 3	138	73	4,234	803	2,826	609	282	180	279	181	7,621
Anvik	31	26	1,304	120	235	20	358	0	187	5	2,084
Grayling	44	22	1,641	498	800	454	267	117	233	69	2,941
Kaltag	57	19	1,162	429	163	20	92	0	10	0	1,427
Nulato	87	28	4,418	1,090	198	164	1,246	806	203	157	6,065
Koyukuk	24	21	285	27	309	2	344	0	166	1	1,104
Galena	160	45	2,806	913	522	273	1,246	482	678	542	5,252
Ruby	61	21	1,503	508	1,800	256	669	190	1,136	479	5,108
Huslia	74	19	269	142	3,711	1,579	1,139	522	764	421	5,883
Hughes	22	16	224	177	3,823	2,934	97	58	110	50	4,254
Allakaket	46	17	61	0	2,333	480	968	96	17	0	3,379
Alatna	5	4	0	0	14	0	0	0	0	0	14
Bettles	20	10	0	0	0	0	0	0	0	0	0
District 4	631	248	13,673	1,667	13,908	3,421	6,426	1,104	3,504	856	37,511
Tanana	90	45	2,291	424	1,414	452	22,934	6,463	1,047	771	27,686
Stevens Village	30	14	2,199	1,350	108	183	1,080	0	100	0	3,487
Birch Creek	9	4	82	101	0	0	0	0	0	0	82
Beaver	30	17	569	289	2	2	48	38	0	0	619
Fort Yukon	161	45	3,641	1,623	1,187	1,093	6,902	1,985	19	14	11,749
Venetie	35	24	280	103	15	0	1,953	262	5	0	2,253
Chalkyitsik	29	18	60	39	0	0	479	496	45	51	584
District 5	384	167	9,122	2,178	2,726	1,197	33,396	6,784	1,216	773	46,460
Survey Totals	2,274	1,009	41,048	3,349	65,896	5,849	42,739	6,996	6,854	1,210	156,537

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 11.—Estimated subsistence harvest of pink salmon, whitefish, northern pike, and inconnu fish, by surveyed villages, Yukon Area, 2004.

Estimated Subsistence Harvest with Corresponding Confidence Intervals (CI) (Expanded to Estimate Survey Village Harvest) ^a														Total
Community	Total Households	Households Contacted ^c	Pink Salmon		Large Whitefish ^b		Small Whitefish		Pike		Sheefish		Expanded Miscellaneous Fish Harvest	
			Estimated CI (95%) Total (+/-)	Estimated CI (95%) Total (+/-)	Estimated CI (95%) Total (+/-)	Estimated CI (95%) Total (+/-)	Estimated CI (95%) Total (+/-)	Estimated CI (95%) Total (+/-)						
Hooper Bay	193	77	5,418	2,271	232	99	4,498	2,370	1,814	1,130	34	34	11,996	
Scammon Bay	82	32	2,508	1,598	791	453	2,406	948	776	364	62	40	6,543	
Coastal District	275	109	7,926	2,777	1,023	463	6,904	2,553	2,590	1,187	96	52	18,539	
Nunam Iqua	32	21	32	36	312	274	1,742	828	43	26	1,081	392	3,210	
Alakanuk	124	58	233	83	500	224	1,988	532	714	190	1,269	629	4,704	
Emmonak	161	85	32	13	510	256	3,154	1,031	1,056	219	1,684	382	6,436	
Kotlik	87	42	318	91	570	190	2,377	1,012	631	263	1,773	593	5,669	
District 1	404	206	615	129	1,892	477	9,261	1,748	2,444	393	5,807	1,023	20,019	
Mountain Village	142	59	891	502	1,698	1,062	1,459	612	2,848	1,272	478	152	7,374	
Pitkas Point	25	20	0	0	31	18	426	123	97	24	124	32	678	
St. Mary's	108	50	137	139	2,496	1,693	1,213	354	977	253	1,032	392	5,855	
Pilot Station	95	46	5	7	816	402	545	355	751	321	1,121	494	3,238	
Marshall	72	32	105	43	1,767	871	504	487	1,662	611	573	265	4,611	
District 2	442	207	1,138	523	6,808	2,217	4,147	937	6,335	1,470	3,328	702	21,756	
Russian Mission	61	25	6	6	564	336	287	178	1,204	525	333	168	2,394	
Holy Cross	48	29	0	0	218	82	67	54	295	92	58	29	638	
Shageluk	29	19	0	0	548	258	265	141	894	467	191	71	1,898	
District 3	138	73	6	6	1,330	431	619	233	2,393	709	582	185	4,930	
Anvik	31	26	0	0	593	10	396	15	117	6	93	5	1,199	
Grayling	44	22	0	0	778	596	148	119	186	131	264	114	1,376	
Kaltag	57	19	10	0	105	40	38	0	38	13	73	44	264	
Nulato	87	28	0	0	187	115	109	74	70	51	272	197	638	
Koyukuk	24	21	0	0	961	1	22	7	242	20	461	51	1,686	
Galena	160	45	0	0	3,603	1,449	413	364	208	93	436	318	4,660	
Ruby	61	21	2	0	917	689	37	41	114	45	142	63	1,212	
Huslia	74	19	0	0	669	345	7,999	6,015	2,007	987	850	300	11,525	
Hughes	22	16	0	0	473	349	1,105	628	56	44	572	512	2,206	
Allakaket	46	17	0	0	460	0	120	192	461	144	545	193	1,586	
Alatna	5	4	0	0	0	0	0	0	0	0	0	0	0	
Bettles	20	10	0	0	0	0	0	0	0	0	45	59	45	
District 4	631	248	12	0	8,746	1,785	10,387	6,064	3,499	1,014	3,753	744	26,397	
Tanana	90	45	0	0	6,906	2,538	2,544	804	73	53	2,430	607	11,953	
Stevens Village	30	14	0	0	40	54	90	107	320	537	6	0	456	
Birch Creek	9	4	0	0	30	46	0	0	30	46	15	23	75	
Beaver	30	17	0	0	80	111	117	139	272	279	201	277	670	
Fort Yukon	161	45	0	0	843	427	1,171	561	283	155	660	324	2,957	
Venetie	35	24	0	0	161	0	452	82	115	0	2	0	730	
Chalkyitsik	29	18	0	0	0	0	488	422	384	261	16	20	888	
District 5	384	167	0	0	8,060	2,578	4,862	1,085	1,477	680	3,330	742	17,729	
Survey Totals	2,274	1,010	9,697	2,829	27,859	3,921	36,180	6,961	18,738	2,391	16,896	1,637	109,370	

^a Subsistence whitefish, northern pike, and inconnu (sheefish) estimates in surveyed communities is based on a stratified random sample of households as designated for the estimation of subsistence salmon harvests. Fish were harvested from fall 2003 through the date of the 2004 survey. Estimate harvest totals for these fish species include fall 2003 and the 2004 season to date of community survey.

^b Large whitefish are considered to be larger than 4 lbs, and small whitefish are less than 4 lbs.

^c The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Table 12.—Reported subsistence harvest of other miscellaneous fish species by surveyed villages, Yukon Area, 2004.

Community	Total Households	Households Contacted ^b	Reported Harvest of Miscellaneous Fish Species (Not Expanded) ^a								
			Burbot	Lamprey	Tomcod	Arctic Grayling	Longnose Sucker	Arctic Char	Blackfish	Sockeye Salmon ^c	Miscellaneous Fish Harvest
Hooper Bay	193	77	31	0	1,635	0	0	0	7,490	18	9,174
Scammon Bay	82	32	82	0	1,027	2	0	8	31,468	5	32,592
Coastal District	275	109	113	0	2,662	2	0	8	38,958	23	41,766
Nunam Iqua	32	21	129	1	356	0	0	11	6,100	8	6,605
Alakanuk	124	58	181	9	100	0	0	11	15,225	19	15,545
Emmonak	161	85	373	0	1,466	3	0	5	52,301	140	54,288
Kotlik	87	42	241	0	405	5	0	5	8,955	18	9,629
District 1	404	206	924	10	2,327	8	0	32	82,581	185	86,067
Mountain Village	142	59	629	1,768	0	69	4	0	20,370	72	22,912
Pitkas Point	25	20	114	978	0	0	0	0	2,492	5	3,589
St. Mary's	108	50	280	1,615	0	59	0	0	23,490	38	25,482
Pilot Station	95	46	612	2,327	0	0	0	0	15,925	27	18,891
Marshall	72	32	406	4,550	300	5	0	0	23,100	114	28,475
District 2	442	207	2,041	11,238	300	133	4	0	85,377	256	99,349
Russian Mission	61	25	159	11,790	0	0	0	6	14,700	3	26,658
Holy Cross	48	29	44	90	0	16	0	0	840	48	1,038
Shageluk	29	19	10	0	0	0	0	0	0	0	10
District 3	138	73	213	11,880	0	16	0	6	15,540	51	27,706
Anvik	31	26	32	7,575	360	40	1	1	0	7	8,016
Grayling	44	22	13	2,915	0	11	2	4	7	10	2,962
Kaltag	57	19	5	0	0	18	0	1	0	16	40
Nulato	87	28	7	300	0	398	0	47	0	13	765
Koyukuk	24	21	0	0	0	0	0	0	0	15	15
Galena	160	45	66	0	0	14	0	4	7,020	32	7,136
Ruby	61	21	8	0	0	3	0	0	0	0	11
Huslia	74	19	27	0	0	4	10	0	350	5	396
Hughes	22	16	6	0	0	12	2	0	0	0	20
Allakaket	46	17	7	0	0	20	12	0	0	57	96
Alatna	5	4	0	0	0	0	0	0	0	0	0
Bettles	20	10	0	0	0	4	0	12	0	0	16
District 4	631	248	171	10,790	360	524	27	69	7,377	155	19,473
Tanana	90	45	38	1	0	42	38	0	0	100	219
Stevens Village	30	14	0	0	0	1	0	0	0	7	8
Birch Creek	9	4	0	0	0	0	0	0	0	0	0
Beaver	30	17	0	0	0	0	0	0	0	0	0
Fort Yukon	161	45	122	0	0	24	80	0	0	8	234
Venetie	35	24	6	0	0	895	29	1	0	2	933
Chalkyitsik	29	18	0	0	0	0	0	0	0	0	0
District 5	384	167	166	1	0	962	147	1	0	117	1,394
Survey Totals	2,274	1,010	3,628	33,919	5,649	1,645	178	116	229,833	787	275,755

^a Miscellaneous fish harvest totals are not expanded and include fish taken from fall 2003 through the date of the 2004 survey.

^b The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

^c Due to low harvest numbers of sockeye salmon and difficulties with identification by fishers, the harvest is not estimated.

Table 13.—Estimated subsistence harvest (not including test fish) of Chinook salmon by fishing location in surveyed villages, Yukon Area, 2004.

COMMUNITY	Coastal District	Districts			Subdistricts ^a								River Drainages					Total by Community ^b
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Hooper Bay	872	170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,042
Scammon Bay	165	831	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	996
Coastal District	1,037	1,001	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,038
Nunam Iqua	6	641	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	647
Alakanuk	74	1,192	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,292
Emmonak	0	1,725	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,725
Kotlik	56	1,002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,058
District 1	136	4,560	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4,722
Mountain Village	0	743	1,619	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,362
Pitkas Point	0	0	609	0	0	0	0	0	0	0	0	0	0	0	0	0	0	609
St. Mary's	93	123	2,141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,357
Pilot Station	0	0	1,741	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,741
Marshall	0	0	1,990	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,990
District 2	93	866	8,100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9,059
Russian Mission	0	0	0	2,337	0	0	0	0	0	0	0	0	0	0	0	0	0	2,337
Holy Cross	0	0	80	1,913	0	0	0	0	0	0	0	0	0	0	0	0	0	1,993
Shageluk	0	0	0	71	0	0	0	0	0	0	0	0	347	0	0	0	0	418
District 3	0	0	80	4,321	0	0	0	0	0	0	0	0	347	0	0	0	0	4,748
Anvik	0	0	0	0	1,588	0	0	0	0	0	0	0	0	0	0	0	0	1,588
Grayling	0	0	0	0	1,869	0	0	0	0	0	0	0	0	0	0	0	0	1,869
Kaltag	0	0	0	0	1,656	0	0	0	0	0	0	0	0	0	0	0	0	1,656
Nulato	0	0	0	0	5,199	0	0	0	0	0	0	0	0	0	0	0	0	5,199
Koyukuk	0	0	0	0	400	0	0	0	0	0	0	0	0	0	0	0	0	400
Galena	0	0	0	0	2,014	952	330	0	0	0	0	0	0	0	0	0	0	3,296
Ruby	0	0	0	0	0	387	1,233	0	0	0	0	0	0	0	0	0	0	1,620
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	285	0	0	0	285
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	291	0	0	0	291
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0	0	0	65
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	12,726	1,339	1,563	0	0	0	0	0	0	641	0	0	0	16,269
Tanana	0	0	0	0	0	0	123	600	1,966	0	0	0	0	0	0	0	0	2,689
Stevens Village	0	0	0	0	0	0	0	0	0	344	2,050	0	0	0	0	0	0	2,394
Birch Creek	0	0	0	0	0	0	0	0	0	0	82	0	0	0	0	0	0	82
Beaver	0	0	0	0	0	0	0	0	0	0	858	0	0	0	0	0	0	858
Fort Yukon	0	0	0	0	0	0	0	0	0	0	2,411	2,019	0	0	0	0	0	4,430
Venetie	0	0	0	0	0	0	0	0	0	0	230	0	0	0	122	0	0	352
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	60	0	0	0	0	0	60
District 5	0	0	0	0	0	0	123	600	1,966	344	5,631	2,079	0	0	122	0	0	10,865
Survey Totals	1,266	6,427	8,206	4,321	12,726	1,339	1,686	600	1,966	344	5,631	2,079	347	641	122	0	0	47,701

^a Harvest in Subdistrict 5-D near Ft. Yukon is divided according to whether fishing occurred upriver or downriver of the confluence between the Yukon and Porcupine Rivers.

^b Totals may not be correct due to decimal rounding. Subsistence harvest estimates include fish caught during commercial openers but retained for subsistence use.

Table 14.—Estimated subsistence harvest (not including test fish) of summer chum salmon by fishing location in surveyed villages, Yukon Area, 2004.

COMMUNITY	Coastal District	Districts			Subdistricts ^a								River Drainages					Total by Community ^b
		1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Hooper Bay	2,426	816	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,242
Scammon Bay	1,014	4,006	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,020
Coastal District	3,440	4,822	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8,262
Nunam Iqua	37	2,661	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,698
Alakanuk	334	5,202	919	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,455
Emmonak	0	7,925	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,925
Kotlik	192	2,482	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2,674
District 1	563	18,270	919	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19,752
Mountain Village	0	3,528	7,148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10,676
Pitkas Point	0	0	717	0	0	0	0	0	0	0	0	0	0	0	0	0	0	717
St. Mary's	203	411	6,380	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6,994
Pilot Station	0	0	3,931	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3,931
Marshall	0	0	1,765	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,765
District 2	203	3,939	19,941	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24,083
Russian Mission	0	0	0	884	0	0	0	0	0	0	0	0	0	0	0	0	0	884
Holy Cross	0	0	0	276	0	0	0	0	0	0	0	0	0	0	0	0	0	276
Shageluk	0	0	0	0	0	0	0	0	0	0	0	0	1,798	0	0	0	0	1,798
District 3	0	0	0	1,160	0	0	0	0	0	0	0	0	1,798	0	0	0	0	2,958
Anvik	0	0	0	0	248	0	0	0	0	0	0	0	0	0	0	0	0	248
Grayling	0	0	0	0	1,129	0	0	0	0	0	0	0	0	0	0	0	0	1,129
Kaltag	0	0	0	0	213	0	0	0	0	0	0	0	0	0	0	0	0	213
Nulato	0	0	0	0	198	0	0	0	0	0	0	0	0	0	0	0	0	198
Koyukuk	0	0	0	0	329	0	0	0	0	0	0	0	0	0	0	0	0	329
Galena	0	0	0	0	612	131	39	0	0	0	0	0	0	0	0	0	0	782
Ruby	0	0	0	0	0	1,605	405	0	0	0	0	0	0	0	0	0	0	2,010
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	3,844	0	0	0	3,844
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	3,823	0	0	0	3,823
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	2,367	0	0	0	2,367
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	16
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	2,729	1,736	444	0	0	0	0	0	0	10,050	0	0	0	14,959
Tanana	0	0	0	0	0	0	0	240	1,250	0	0	0	0	0	0	0	0	1,490
Stevens Village	0	0	0	0	0	0	0	0	0	108	0	0	0	0	0	0	0	108
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
Fort Yukon	0	0	0	0	0	0	0	0	0	0	1,002	185	0	0	0	0	0	1,187
Venetie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	240	1,250	108	1,004	185	0	0	15	0	0	2,802
Survey Totals	4,206	27,031	20,860	1,160	2,729	1,736	444	240	1,250	108	1,004	185	1,798	10,050	15	0	0	72,816

^a Harvest in Subdistrict 5-D near Ft. Yukon is divided according to whether fishing occurred upriver or downriver of the confluence between the Yukon and Porcupine Rivers.

^b Totals may not be correct due to decimal rounding. Subsistence harvest estimates include fish caught during commercial openers but retained for subsistence use.

Table 15.—Estimated subsistence harvest (not including test fish) of fall chum salmon by fishing location in surveyed villages, Yukon Area, 2004.

COMMUNITY	Coastal	Districts			Subdistricts ^a								River Drainages					Total by Community ^b
	District	1	2	3	4A	4B	4C	5A	5B	5C	5D-down	5D-up	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Hooper Bay	264	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	264
Scammon Bay	25	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56
Coastal District	289	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	320
Nunam Iqua	0	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
Alakanuk	0	953	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	953
Emmonak	0	275	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	275
Kotlik	64	91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	155
District 1	64	1,368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,432
Mountain Village	0	230	263	0	0	0	0	0	0	0	0	0	0	0	0	0	0	493
Pitkas Point	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Mary's	0	23	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104
Pilot Station	0	0	382	0	0	0	0	0	0	0	0	0	0	0	0	0	0	382
Marshall	0	0	291	0	0	0	0	0	0	0	0	0	0	0	0	0	0	291
District 2	0	253	1,017	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,270
Russian Mission	0	0	0	172	0	0	0	0	0	0	0	0	0	0	0	0	0	172
Holy Cross	0	0	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0	76
Shageluk	0	0	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	50
District 3	0	0	0	248	0	0	0	0	0	0	0	0	50	0	0	0	0	298
Anvik	0	0	0	0	398	0	0	0	0	0	0	0	0	0	0	0	0	398
Grayling	0	0	0	0	267	0	0	0	0	0	0	0	0	0	0	0	0	267
Kaltag	0	0	0	0	95	0	0	0	0	0	0	0	0	0	0	0	0	95
Nulato	0	0	0	0	1,246	0	0	0	0	0	0	0	0	0	0	0	0	1,246
Koyukuk	0	0	0	0	344	0	0	0	0	0	0	0	0	0	0	0	0	344
Galena	0	0	0	0	921	411	255	0	0	0	0	0	0	0	0	0	0	1,587
Ruby	0	0	0	0	0	901	163	0	0	0	0	0	0	0	0	0	0	1,064
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	1,139	0	0	0	1,139
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	97	0	0	0	97
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	968	0	0	0	968
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	3,271	1,312	418	0	0	0	0	0	0	2,204	0	0	0	7,205
Tanana	0	0	0	0	0	0	0	4,419	18,699	0	0	0	0	0	0	0	0	23,118
Stevens Village	0	0	0	0	0	0	0	0	0	0	1,080	0	0	0	0	0	0	1,080
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	48	0	0	0	0	0	0	48
Fort Yukon	0	0	0	0	0	0	0	0	0	0	1,873	4,762	0	0	0	0	667	7,302
Venetie	0	0	0	0	0	0	0	0	0	0	511	0	0	0	1,572	0	0	2,083
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	479	479
District 5	0	0	0	0	0	0	0	4,419	18,699	0	3,512	4,762	0	0	1,572	0	1,146	34,110
Survey Totals	353	1,652	1,017	248	3,271	1,312	418	4,419	18,699	0	3,512	4,762	50	2,204	1,572	0	1,146	44,635

^a Harvest in Subdistrict 5-D near Ft. Yukon is divided according to whether fishing occurred upriver or downriver of the confluence between the Yukon and Porcupine Rivers.

^b Totals may not be correct due to decimal rounding. Subsistence harvest estimates include fish caught during commercial openers but retained for subsistence use.

Table 16.—Estimated subsistence harvest (not including test fish) of coho salmon by fishing location in surveyed villages, Yukon Area, 2004.

COMMUNITY	Coastal	Districts			Subdistricts ^a							River Drainages					Total by Community ^b
	District	1	2	3	4A	4B	4C	5A	5B	5C	5D-down	Innoko	Koyukuk	Chandalar	Porcupine	Black	
Hooper Bay	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Scammon Bay	25	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54
Coastal District	33	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63
Nunam Iqua	0	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79
Alakanuk	0	207	0	0	0	0	0	0	0	0	0	0	0	0	0	0	207
Emmonak	0	201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201
Kotlik	136	400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	536
District 1	136	887	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,023
Mountain Village	0	149	87	0	0	0	0	0	0	0	0	0	0	0	0	0	236
Pitkas Point	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
St. Mary's	0	23	235	0	0	0	0	0	0	0	0	0	0	0	0	0	258
Pilot Station	0	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	60
Marshall	0	0	425	0	0	0	0	0	0	0	0	0	0	0	0	0	425
District 2	0	172	807	0	0	0	0	0	0	0	0	0	0	0	0	0	979
Russian Mission	0	0	0	151	0	0	0	0	0	0	0	0	0	0	0	0	151
Holy Cross	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	27
Shageluk	0	0	0	0	0	0	0	0	0	0	0	106	0	0	0	0	106
District 3	0	0	0	178	0	0	0	0	0	0	0	106	0	0	0	0	284
Anvik	0	0	0	0	288	0	0	0	0	0	0	0	0	0	0	0	288
Grayling	0	0	0	0	233	0	0	0	0	0	0	0	0	0	0	0	233
Kaltag	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	10
Nulato	0	0	0	0	203	0	0	0	0	0	0	0	0	0	0	0	203
Koyukuk	0	0	0	0	166	0	0	0	0	0	0	0	0	0	0	0	166
Galena	0	0	0	0	364	908	35	0	0	0	0	0	0	0	0	0	1,307
Ruby	0	0	0	0	0	1,121	419	0	0	0	0	0	0	0	0	0	1,540
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	764	0	0	0	764
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	110	0	0	0	110
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	17
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	0	0	0	0	1,264	2,029	454	0	0	0	0	0	891	0	0	0	4,638
Tanana	0	0	0	0	0	0	0	78	971	0	0	0	0	0	0	0	1,049
Stevens Village	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	100
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Yukon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19
Venetie	0	0	0	0	0	0	0	0	0	0	2	0	0	3	0	0	5
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	45
District 5	0	0	0	0	0	0	0	78	971	0	102	0	0	3	0	45	1,218
Survey Totals	169	1,089	807	178	1,264	2,029	454	78	971	0	102	106	891	3	0	45	8,205

^a Harvest in Subdistrict 5-D near Ft. Yukon is divided according to whether fishing occurred upriver or downriver of the confluence between the Yukon and Porcupine Rivers.

^b Totals may not be correct due to decimal rounding. Subsistence harvest estimates include fish caught during commercial openers but retained for subsistence use.

Table 17.—Responses to survey question assessing percentage of subsistence salmon needs being met, by community, by species, Yukon Area, 2004.

Community	Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species ^a										
	Chinook Salmon						Summer Chum Salmon				
	Total Households	Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26 % to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%	Total Number of Household Responses	% HH's Responses 0% to 25%	% HH's Responses 26 % to 50%	% HH's Responses 51% to 75%	% HH's Responses 76% to 100%
Hooper Bay	193	49	65%	12%	8%	14%	55	67%	16%	5%	11%
Scammon Bay	82	22	9%	14%	14%	64%	21	5%	5%	19%	71%
Coastal District	275	71	48%	13%	10%	30%	76	50%	13%	9%	28%
Nunam Iqua	32	17	12%	6%	18%	65%	17	18%	6%	24%	53%
Alakanuk	124	46	22%	7%	9%	63%	47	17%	11%	13%	60%
Emmonak	161	69	28%	16%	20%	36%	73	29%	15%	21%	36%
Kotlik	87	28	0%	25%	25%	50%	28	11%	11%	36%	43%
District 1	404	160	19%	14%	18%	49%	165	21%	12%	21%	45%
Mountain Village	142	48	13%	13%	4%	71%	51	10%	10%	12%	69%
Pitkas Point	25	12	0%	8%	8%	83%	8	0%	0%	0%	100%
St. Mary's	108	46	9%	15%	17%	59%	45	2%	13%	18%	67%
Pilot Station	95	40	13%	10%	13%	65%	45	11%	16%	4%	69%
Marshall	72	28	7%	14%	18%	61%	26	8%	15%	12%	65%
District 2	442	174	10%	13%	12%	66%	175	7%	13%	11%	69%
Russian Mission	61	21	5%	14%	19%	62%	12	25%	0%	8%	67%
Holy Cross	48	20	5%	10%	10%	75%	6	50%	0%	0%	50%
Shageluk	29	12	33%	25%	0%	42%	11	36%	18%	18%	27%
District 3	138	53	11%	15%	11%	62%	29	34%	7%	10%	48%
Anvik	31	13	0%	8%	0%	92%	2	0%	0%	0%	100%
Grayling	44	15	7%	13%	7%	73%	6	33%	17%	0%	50%
Kaltag	57	12	0%	8%	33%	58%	1	0%	100%	0%	0%
Nulato	87	26	4%	0%	8%	88%	6	33%	0%	0%	67%
Koyukuk	24	16	19%	6%	0%	75%	10	30%	10%	0%	60%
Galena	160	32	6%	6%	6%	81%	10	20%	10%	20%	50%
Ruby	61	16	13%	0%	0%	88%	11	18%	0%	0%	82%
Huslia	74	5	40%	20%	0%	40%	5	20%	40%	0%	40%
Hughes	22	5	40%	20%	20%	20%	5	0%	40%	0%	60%
Allakaket	46	8	38%	0%	25%	38%	8	25%	0%	38%	38%
Alatna	5	4	75%	0%	0%	25%	2	100%	0%	0%	0%
Bettles	20	4	75%	0%	0%	25%	3	100%	0%	0%	0%
District 4	631	156	14%	6%	8%	72%	69	28%	12%	7%	54%
Tanana	90	18	17%	6%	0%	78%	12	8%	8%	8%	75%
Stevens Village	30	11	36%	9%	9%	45%	3	100%	0%	0%	0%
Birch Creek	9	2	100%	0%	0%	0%	0	-	-	-	-
Beaver	30	9	22%	0%	0%	78%	0	-	-	-	-
Fort Yukon	161	19	16%	5%	11%	68%	7	0%	0%	0%	100%
Venetie	35	10	0%	30%	10%	60%	3	67%	0%	0%	33%
Chalkyitsik	29	10	20%	10%	0%	70%	1	0%	100%	0%	0%
District 5	384	79	20%	9%	5%	66%	26	23%	8%	4%	65%
Survey Totals	2,274	693	18%	11%	11%	59%	540	22%	12%	13%	53%

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Table 17.–Page 2 of 2.

Percent of Households (HH's) That Responded to Subsistence Needs Met Question, By Community, By Species ^a											
Community	Total Households	Fall Chum Salmon					Coho Salmon				
		Total Number of Household Responses	% HH's Responses	% HH's Responses	% HH's Responses	% HH's Responses	Total Number of Household Responses	% HH's Responses	% HH's Responses	% HH's Responses	% HH's Responses
			0% to 25%	26 % to 50%	51% to 75%	76% to 100%		0% to 25%	26 % to 50%	51% to 75%	76% to 100%
Hooper Bay	193	15	93%	7%	0%	0%	15	87%	7%	7%	0%
Scammon Bay	82	2	0%	0%	0%	100%	2	0%	0%	0%	100%
Coastal District	275	17	82%	6%	0%	12%	17	76%	6%	6%	12%
Nunam Iqua	32	10	40%	0%	0%	60%	9	33%	0%	0%	67%
Alakanuk	124	13	38%	0%	23%	38%	14	36%	0%	21%	43%
Emmonak	161	10	90%	10%	0%	0%	13	69%	8%	8%	15%
Kotlik	87	6	0%	33%	0%	67%	5	0%	20%	0%	80%
District 1	404	39	46%	8%	8%	38%	41	41%	5%	10%	44%
Mountain Village	142	12	33%	8%	0%	58%	7	43%	0%	0%	57%
Pitkas Point	25	0	-	-	-	-	0	-	-	-	-
St. Mary's	108	9	11%	11%	33%	44%	8	25%	13%	13%	50%
Pilot Station	95	16	19%	13%	13%	56%	9	33%	0%	11%	56%
Marshall	72	13	15%	8%	23%	54%	9	22%	0%	22%	56%
District 2	442	50	20%	10%	16%	54%	33	30%	3%	12%	55%
Russian Mission	61	0	-	-	-	-	2	0%	50%	0%	50%
Holy Cross	48	6	33%	0%	0%	67%	4	75%	0%	0%	25%
Shageluk	29	0	-	-	-	-	3	33%	33%	0%	33%
District 3	138	6	33%	0%	0%	67%	9	44%	22%	0%	33%
Anvik	31	1	0%	0%	0%	100%	3	0%	0%	0%	100%
Grayling	44	3	0%	0%	0%	100%	4	25%	0%	0%	75%
Kaltag	57	1	0%	100%	0%	0%	1	0%	100%	0%	0%
Nulato	87	8	25%	0%	0%	75%	6	17%	0%	17%	67%
Koyukuk	24	7	29%	14%	0%	57%	7	29%	0%	0%	71%
Galena	160	14	14%	7%	14%	64%	12	17%	8%	8%	67%
Ruby	61	7	29%	0%	0%	71%	7	29%	0%	0%	71%
Huslia	74	5	20%	20%	20%	40%	2	0%	0%	50%	50%
Hughes	22	2	50%	0%	0%	50%	2	50%	0%	0%	50%
Allakaket	46	7	29%	14%	29%	29%	7	43%	0%	29%	29%
Alatna	5	1	100%	0%	0%	0%	1	100%	0%	0%	0%
Bettles	20	3	100%	0%	0%	0%	3	100%	0%	0%	0%
District 4	631	59	27%	8%	8%	56%	55	29%	4%	9%	58%
Tanana	90	12	8%	0%	0%	92%	9	0%	0%	0%	100%
Stevens Village	30	5	40%	0%	0%	60%	5	40%	0%	0%	60%
Birch Creek	9	0	-	-	-	-	1	100%	0%	0%	0%
Beaver	30	0	-	-	-	-	0	-	-	-	-
Fort Yukon	161	11	9%	0%	0%	91%	5	0%	0%	0%	100%
Venetie	35	8	25%	0%	13%	63%	0	-	-	-	-
Chalkyitsik	29	3	33%	0%	0%	67%	2	0%	0%	0%	100%
District 5	384	39	18%	0%	3%	79%	22	14%	0%	0%	86%
Survey Totals	2,274	210	32%	7%	8%	53%	177	36%	5%	8%	52%

^a In 2003 the survey asked whether 25%, 50%, 75%, or 100% of subsistence needs were met for each salmon species, and results combined household responses of household responses of 25% and 50% as (less than 50%) and 75% and 100% as (greater than 50%). In 2004, the table categories were not combined and households responses are reported as indicated on survey.

Table 18.—Reported subsistence and personal use fish harvested under the authority of a permit, listed by permit area, Yukon Area, 2004.

Permit Fishing Area						Permits Returned that Fished ^c	Reported Harvest									
	Permit ^a			Percent Returned	Summer		Fall									
	Type	Issued ^b	Returned		Chinook	Chum	Chum	Coho	Whitefish	Sheefish	Burbot	Pike	Suckers	Grayling		
Subsistence Permit																
Koyukuk Middle and South Fork Rivers ^d	SF	1	1	100%	1	0	0	0	0	4	0	0	0	0	0	4
Yukon River Rampart Area ^d	SR	14	11	79%	9	832	249	0	0	0	0	0	0	0	0	0
Yukon River near Haul Road Bridge	SY	69	67	97%	51	2,032	164	43	91	56	6	15	26	0	0	0
Yukon River near Circle and Eagle	SE	89	83	93%	50	2,304	223	6,517	114	381	16	18	22	249	938	
Tanana River Subdistrict 6A	SA	18	18	100%	8	239	306	1,529	1,419	17	3	0	26	14	0	0
Tanana River Subdistrict 6B	SB	60	56	93%	30	1,049	1,485	6,805	9,580	933	35	49	58	17	46	
Tanana River Upstream of Subdistrict 6C	SU	35	30	86%	14	0	0	0	0	2,346	0	14	26	30	41	
Kantishna River Subdistrict 6A	SK	5	5	100%	4	100	2	619	585	0	1	1	55	0	1	
Tolovana River Pike Subdistrict 6B	ST	99	90	91%	42	0	0	0	0	110	35	30	393	30	1	
Whitefish/ Sucker	SW	1	1	100%	1	0	0	0	0	504	0	0	0	0	1	
Subsistence Permit Subtotals		391	362	93%	210	6,556	2,429	15,513	11,789	4,351	96	127	606	340	1,032	
Personal Use Permit																
Tanana River Subdistrict 6C	PC	68	66	97%	35	201	231	230	233	0	1	0	0	1	0	
Tanana River Whitefish Upstream of Subdistrict 6C	PW	3	2	67%	1	0	0	0	0	51	0	0	0	0	0	
Personal Use Permit Subtotals		71	68	96%	36	201	231	230	233	51	1	0	0	1	0	
Permit Totals		462	430	93%	246	6,757	2,660	15,743	12,022	4,402	97	127	606	341	1,032	

^a Permits returned as of June 1, 2005.^b Includes 27 households that were issued permits for more than 1 area.^c Includes 5 households that fished in 2 different permit areas.^d First year that fishers were required to obtain a subsistence household permit to fish in this area.

Table 19.—Reported subsistence and personal use fish harvested under the authority of a permit, listed by fishery, by community of residence, and by drainage, Yukon Area, 2004.

Community	Harvest by Drainage	Permits ^a		Percent Returned	Permits Returned that Fished	Reported Harvest									
		Issued	Returned			Summer Chinook	Fall Chum	Chum	Coho	Whitefish	Sheefish	Burbot	Pike	Sucker	Grayling
Subsistence Permit															
Central	Yukon River	4	4	100%	4	83	0	0	0	0	0	0	0	0	0
Circle	Yukon River	25	20	80%	12	565	52	1,022	100	47	0	1	5	9	0
Eagle	Yukon River	48	48	100%	29	1,512	171	5,482	14	331	12	13	16	240	938
Fairbanks (FNSB) ^b	Yukon River	71	68	96%	53	1,997	280	43	91	56	6	15	26	0	0
	Tolovana River	83	77	93%	36	0	0	0	0	2	13	10	110	0	0
	Kantishna River	1	1	100%	1	0	0	0	0	0	0	0	48	0	0
	Tanana River	14	13	93%	9	449	308	1,024	1,435	127	10	0	3	0	0
	<i>FNSB Subtotal</i>	169	159	94%	99	2,446	588	1067	1526	185	29	25	187	0	0
Healy	Tanana River	6	6	100%	4	0	0	934	2,072	311	2	19	20	0	0
	Kantishna River	1	1	100%	1	0	0	124	194	0	0	0	1	0	0
	<i>Healy Subtotal</i>	7	7	100%	5	0	0	1,058	2,266	311	2	19	21	0	0
Manley	Yukon River	2	2	100%	1	175	3	0	0	0	0	0	0	0	0
	Tanana River	12	12	100%	5	239	296	1,504	1,384	12	3	0	24	14	0
	<i>Manley Subtotal</i>	14	14	100%	6	414	299	1,504	1,384	12	3	0	24	14	0
Minto	Yukon River	4	4	100%	1	100	0	0	0	0	0	0	0	0	0
	Tolovana River	15	13	87%	6	0	0	0	0	108	22	20	283	30	1
	Tanana River	17	15	88%	4	35	7	0	5	14	0	0	13	0	0
	<i>Minto Subtotal</i>	36	32	89%	11	135	7	0	5	122	22	20	296	30	1
Nenana	Tanana River	26	25	96%	14	533	1,169	4,872	6,103	486	23	30	24	17	46
	Kantishna River	3	3	100%	2	100	2	495	391	0	1	1	6	0	1
	<i>Nenana Subtotal</i>	29	28	97%	16	633	1,171	5,367	6,494	486	24	31	30	17	47
Rampart	Yukon River	5	3	60%	2	287	103	0	0	0	0	0	0	0	0
Stevens Village	Yukon River	4	4	100%	4	367	27	0	0	0	0	0	0	0	0
Upper Tanana Villages (UTV) ^c	Yukon River	6	6	100%	3	76	0	13	0	3	4	4	1	0	0
	Tanana River	34	29	85%	13	0	0	0	0	2,346	0	9	16	30	41
	<i>UTV Subtotal</i>	40	35	88%	16	76	0	13	0	2,349	4	13	17	30	41
Other ^d	Yukon River	4	3	75%	2	6	0	0	0	4	0	0	0	0	4
	Tolovana River	1	0	0%	0	0	0	0	0	0	0	0	0	0	0
	Tanana River	5	5	100%	4	32	11	0	0	504	0	5	10	0	1
	<i>Other Subtotal</i>	10	8	80%	6	38	11	0	0	508	0	5	10	0	5
<i>Subsistence Permit Subtotals</i>		391	362	93%	210	6,556	2,429	15,513	11,789	4,351	96	127	606	340	1,032

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Table 19.—Page 2 of 2.

Community	Harvest by Drainage	Permits ^a		Percent Returned	Permits Returned that Fished	Reported Harvest										
		Issued	Returned			Chinook	Summer Chum	Fall Chum	Coho	Whitefish	Sheefish	Burbot	Pike	Sucker	Grayling	
Personal Use Permit																
Upper Tanana																
Villages (UTV) ^c	Tanana River	2	1	50%	0	0	0	0	0	0	0	0	0	0	0	0
Fairbanks (FNSB) ^b	Tanana River	69	67	97%	36	201	231	230	233	51	1	0	0	1	0	0
<i>Personal Use Permit Subtotals</i>		<i>71</i>	<i>68</i>	<i>96%</i>	<i>36</i>	<i>201</i>	<i>231</i>	<i>230</i>	<i>233</i>	<i>51</i>	<i>1</i>	<i>0</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>0</i>
Permit Totals		462	430	93%	246	6,757	2,660	15,743	12,022	4,402	97	127	606	341	1,032	

^a Permits returned as of June 1, 2005.

^b Fairbanks North Star Borough (FNSB) includes residents from the communities of Ester, Fairbanks, North Pole, Salcha, and Two Rivers.

^c Upper Tanana Villages include residents from the communities of Delta Junction, Dot Lake, Northway, Tanacross, and Tok.

^d "Others" represents residents from communities of Anchorage, Big Lake, Coldfoot, Denali Park, Eagle River, Gakona, Lake Minchumina, Paxson, Tanana Village, and Wiseman who were issued a household subsistence fishing permit.

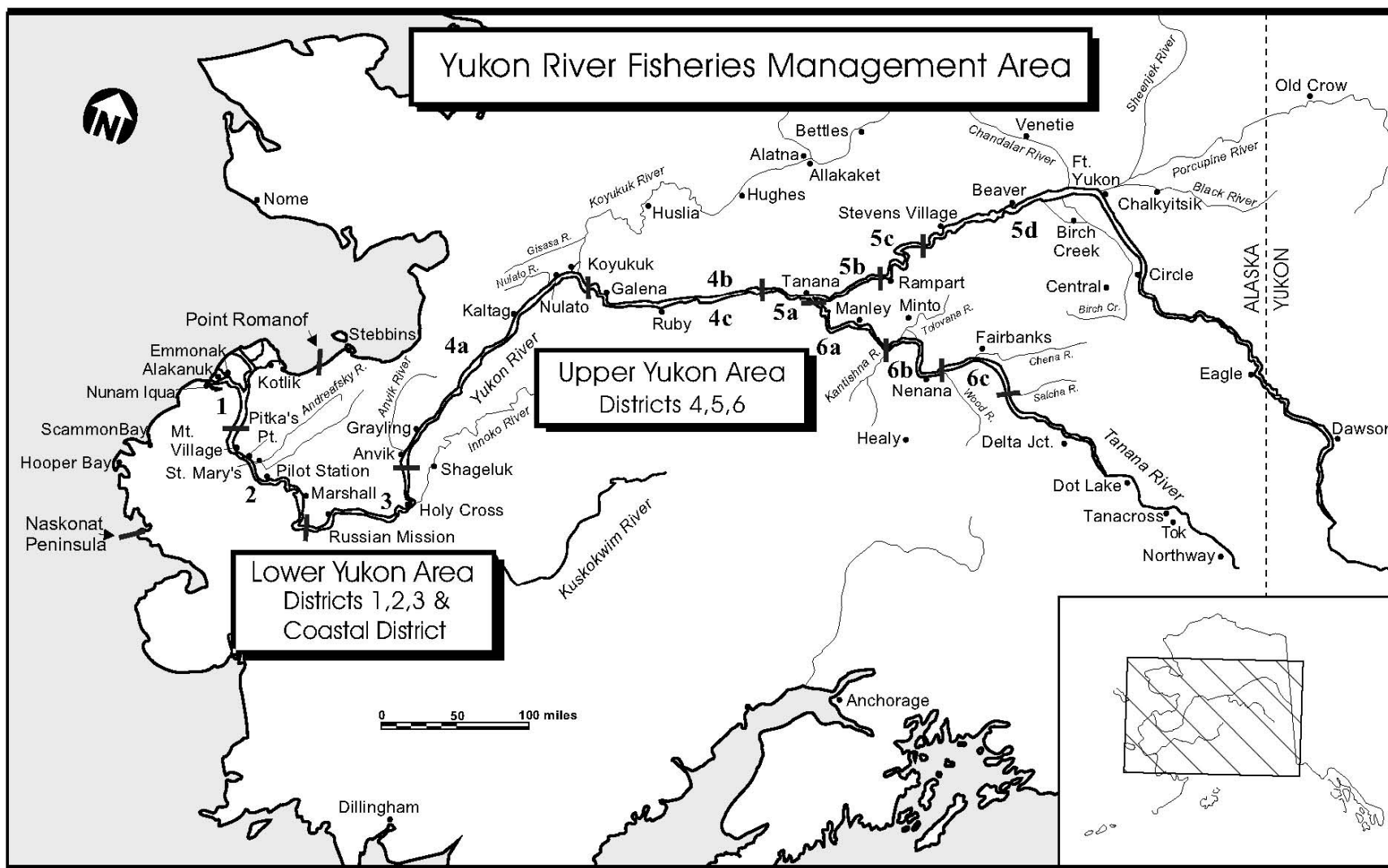


Figure 1.—Alaskan portion of Yukon River drainage showing communities and fishing districts.

Community _____	HHID# _____
Date of Survey _____	Person Interviewed _____
Interviewer _____	Relation to HH _____

2004 Yukon Area Post-Season Subsistence Salmon Harvest Survey
CONFIDENTIAL INFORMATION

- We would like to make sure we have the correct name and address for your household.**
 Head of Household _____
 Mailing Address _____ Telephone: _____
 Permanent Note _____
 Significant Other _____
 Permanent Note _____
- How many people live in your household?** _____
- Did anyone in your household catch salmon for subsistence use this year?** Yes ____ No ____ (If "No," go to area II)
 Adult household member declined to be interviewed. [] Reason given: _____

I. HOUSEHOLDS THAT CAUGHT SALMON

- May I have your salmon catch calendar?** Yes ____ No ____ Already sent in ____ (Are all fish harvested on calendar?)
- How many total salmon did you or your fishing group catch this year?** (Group may include other households)
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
- How many households help catch these fish?** ____ (Names) _____

***7. How many total salmon did your household catch for subsistence purposes this year?**
 (Include only fish caught by this household, not the group, includes fish kept from commercial periods.)
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

- Did you or anyone in this household commercial fish this year?** Yes ____ No ____
- If Yes.** How many salmon caught during commercial openings did your household keep for subsistence use?
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
- Did your household "lose" any salmon? (e.g. to bears, birds, spoilage, diseased fish, Ichthyophonus, etc.)**
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
- **11. How many salmon did you keep for your household's use?** (do not include fish given away or "lost")
 CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
- Did your household share the salmon catch with any other households?** (names, species and numbers)

13. Where do you catch your subsistence salmon? (Circle all that apply and show harvest by area if more than one)
 Ocean 1 2 3 4A 4B 4C 5A 5B 5C 5D (Ft Yukon ↑ or ↓) Innoko Koyukuk Chandalar Porcupine Black
 Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____
 Area _____ CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

- What is your household's primary type of salmon fishing gear?** (In order of importance 1= primary)
 SET NET ____ DRIFT NET ____ FISH WHEEL ____ HOOK & LINE ____ DIPNET ____ OTHER ____

Figure 2.–Yukon Area postseason subsistence salmon harvest survey form, 2004.

II. ALL HOUSEHOLDS

15. Did your household catch any other fish besides salmon? Yes _____ No _____

(Harvest numbers should include from September/October of last year to now) (Large Whitefish are 4 pounds or greater)

LG WHITEFISH _____ SM WHITEFISH _____ SHEEFISH _____ BURBOT _____ PIKE _____ BLACKFISH _____

GRAYLING _____ SUCKERS _____ TROUT (Arctic Char) _____ EELS (Lamprey) _____ TOMCOD (Saffron) _____

Did your household catch any sockeye (red) salmon this year? Yes _____ No _____ How many? _____

**16. Was your household given any salmon? Yes _____ No _____ Code: S=Subsistence, C=Commercial, T=Test Fish

Code: _____ Fishermen/Project (Name) _____

CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

Code: _____ Fishermen/Project (Name) _____

CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

17. How many dogs (including puppies) does your household have? _____ (if "No" on questions 3 and 16 go to question 22)

18. Do you feed whole salmon to your dogs? Yes _____ No _____ Only Feed Scraps _____ (if "No" go to question 21)

19. Were any of the salmon put up for the dogs from the commercial fishery? Yes _____ No _____

20. Estimate harvest of salmon put up for dogs this year by fishery (numbers should represent whole fish, not scraps):

(subsistence) CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____

(commercial) CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____

21. How successful was your household in meeting its subsistence salmon needs? (Indicate percent success with "x")

Chinook: _____ (100%) _____ (75%) _____ (50%) _____ (25%) If poor, why? _____

Summer Chum: _____ (100%) _____ (75%) _____ (50%) _____ (25%) If poor, why? _____

Fall Chum: _____ (100%) _____ (75%) _____ (50%) _____ (25%) If poor, why? _____

Coho: _____ (100%) _____ (75%) _____ (50%) _____ (25%) If poor, why? _____

22. Additional Comments: _____

THANK YOU! THIS INFORMATION IS USED TO DOCUMENT THE SUBSISTENCE SALMON HARVEST WITHIN THE YUKON RIVER DRAINAGE AND TO TRY TO ENSURE THERE WILL BE ENOUGH SALMON FOR THE FUTURE.

Surveyor Comments:

Official Use - This area is to be filled in by Fish and Game.

HOUSEHOLD'S TOTAL SUBSISTENCE SALMON CATCH (Totals from question *7)

CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

HOUSEHOLD'S TOTAL SUBSISTENCE SALMON USE (Add totals from questions **11 and **16)

CHINOOK _____ SUMMER CHUM _____ FALL CHUM _____ COHO _____ PINK _____

Complete Survey _____ Partial Survey _____ No Survey _____

Figure 2.-Page 2 of 2.

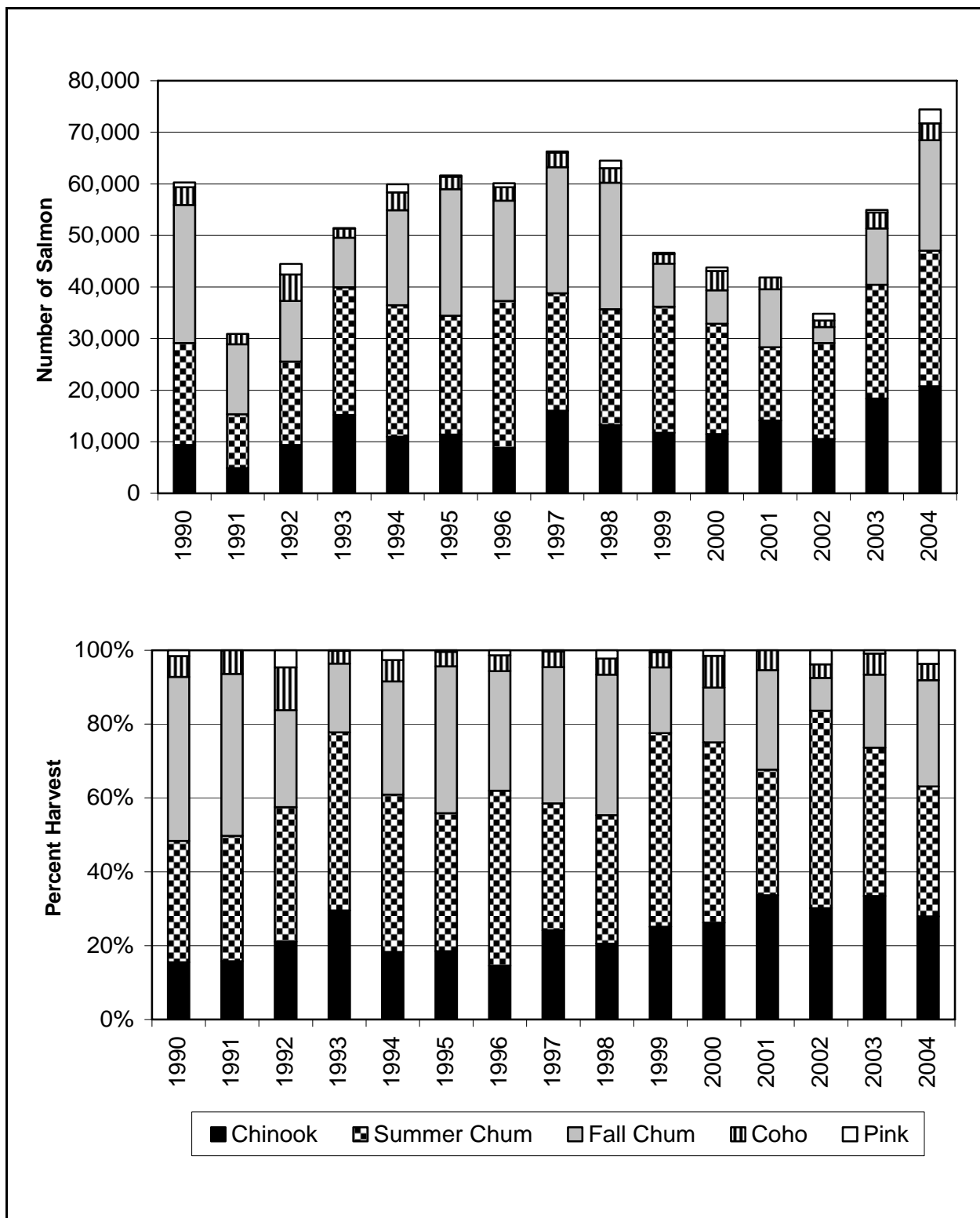


Figure 3.—Subsistence salmon harvest reported on catch calendars by species from Districts 1 through 4 and in a portion of District 5, Yukon Area, 1990–2004.

5 AAC 99.015 JOINT BOARD NONSUBSISTENCE AREAS. (4) The Fairbanks Nonsubsistence Area is comprised of the following: within Unit 20(A) as defined by 5 AAC 92.450(20)(A) east of the Wood River drainage and south of the Rex Trail but including the upper Wood River drainage south of its confluence with Chicken Creek, within Unit 20(B) as defined by 5AAC 92.450(20)(B) the North Star Borough and that portion of the Washington Creek drainage east of the Elliot Highway, within 20(D) as defined by 5 AAC 92.450(20)(D) west of the Tanana River between its confluence's with the Johnson and Delta Rivers, west of the west bank of the Johnson River, and north and west of the Volkmar drainage, including the Goodpaster River drainage, and within Unit 25(C) as defined by 5 AAC 92.450(25)(C) the Preacher and Beaver Creek drainages.

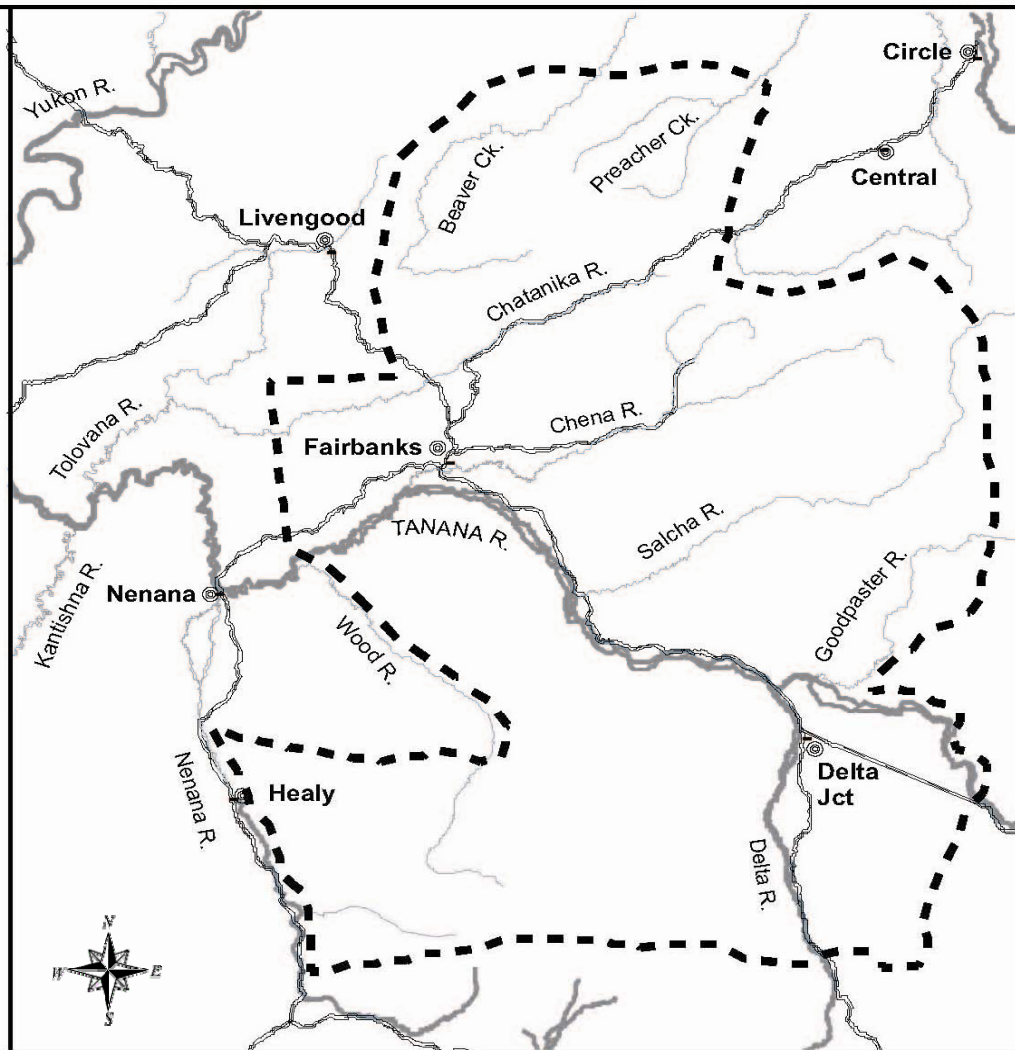
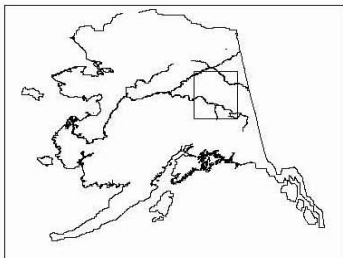
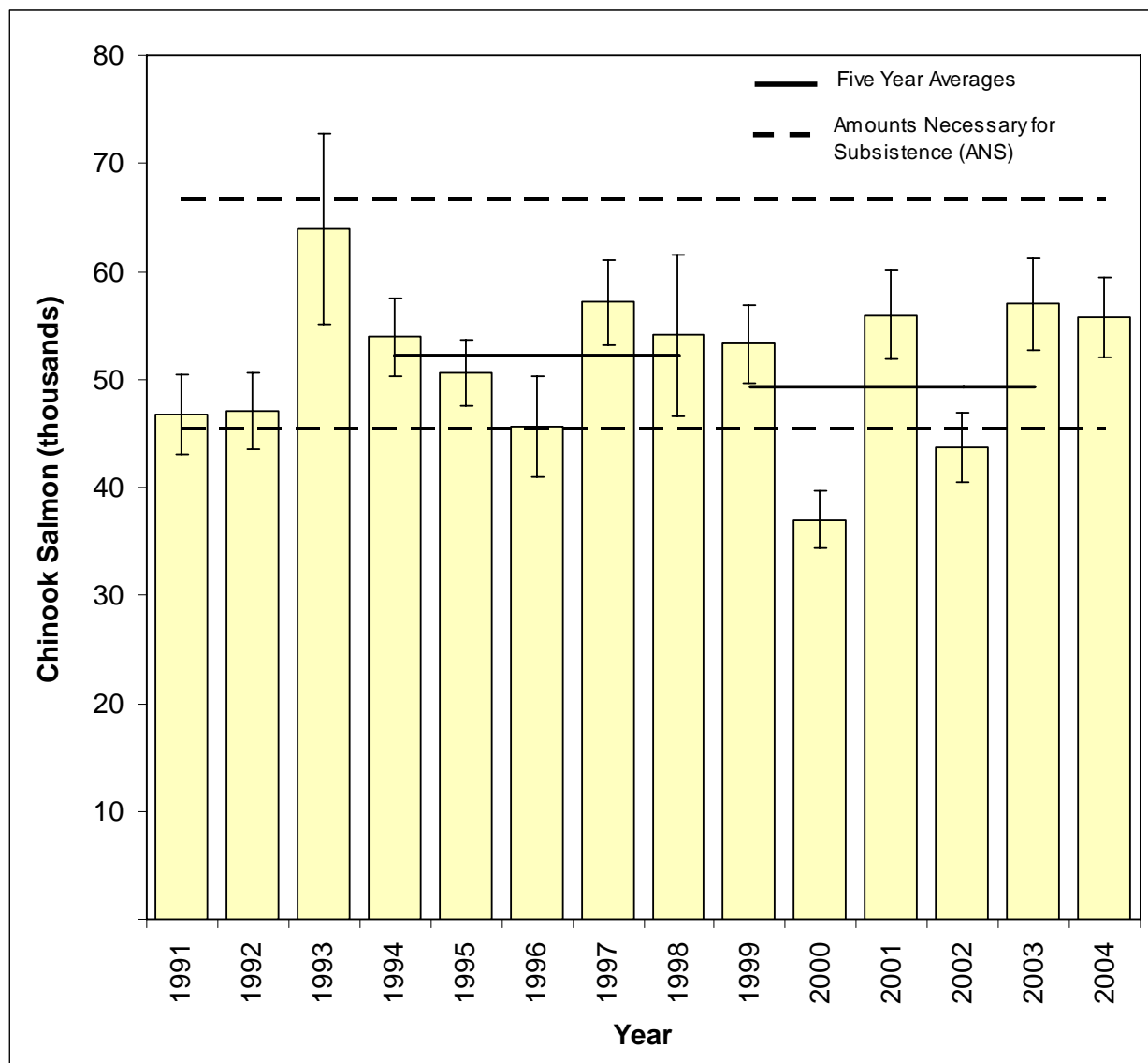
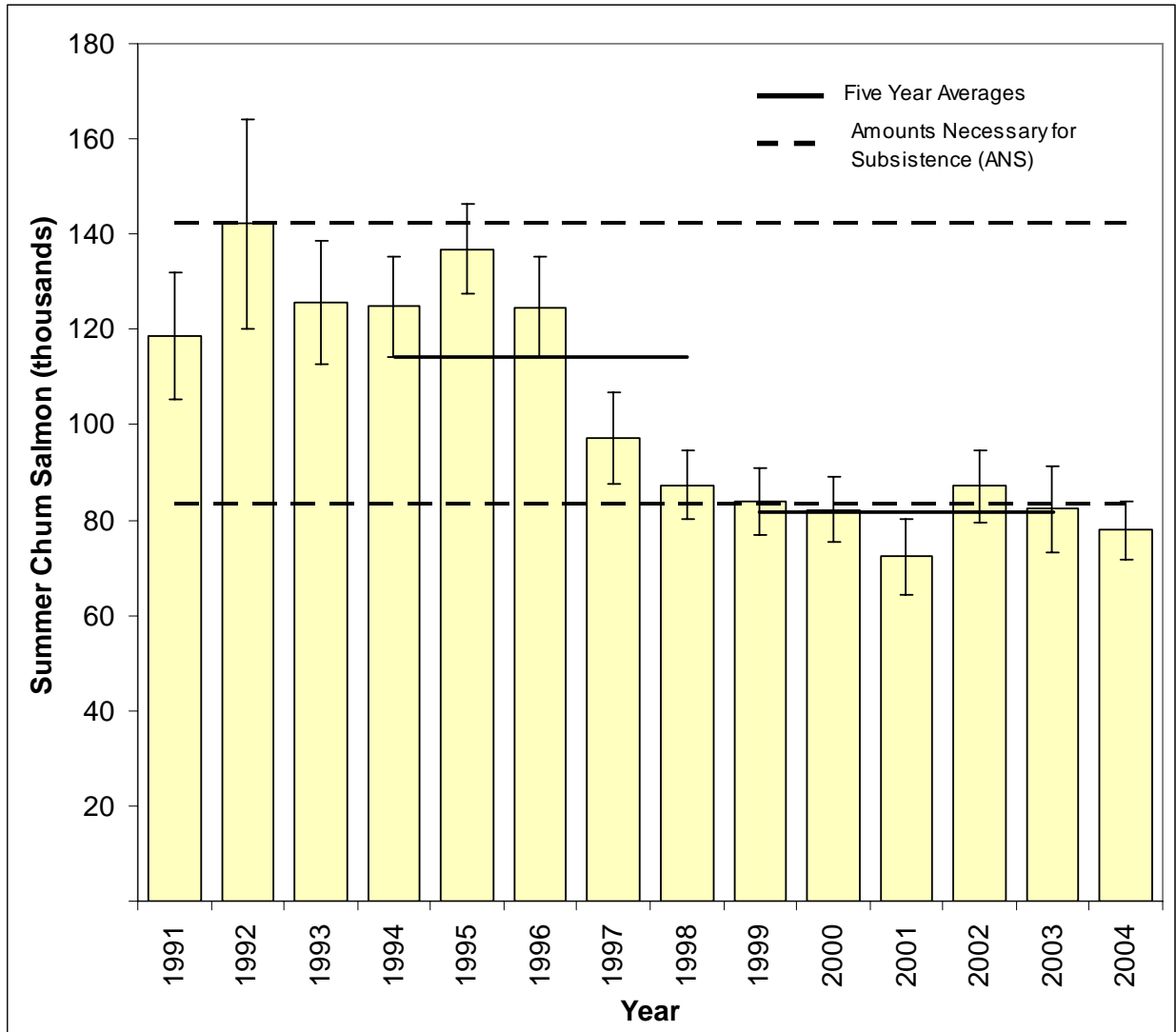


Figure 4.–Fairbanks Nonsubsistence Area.



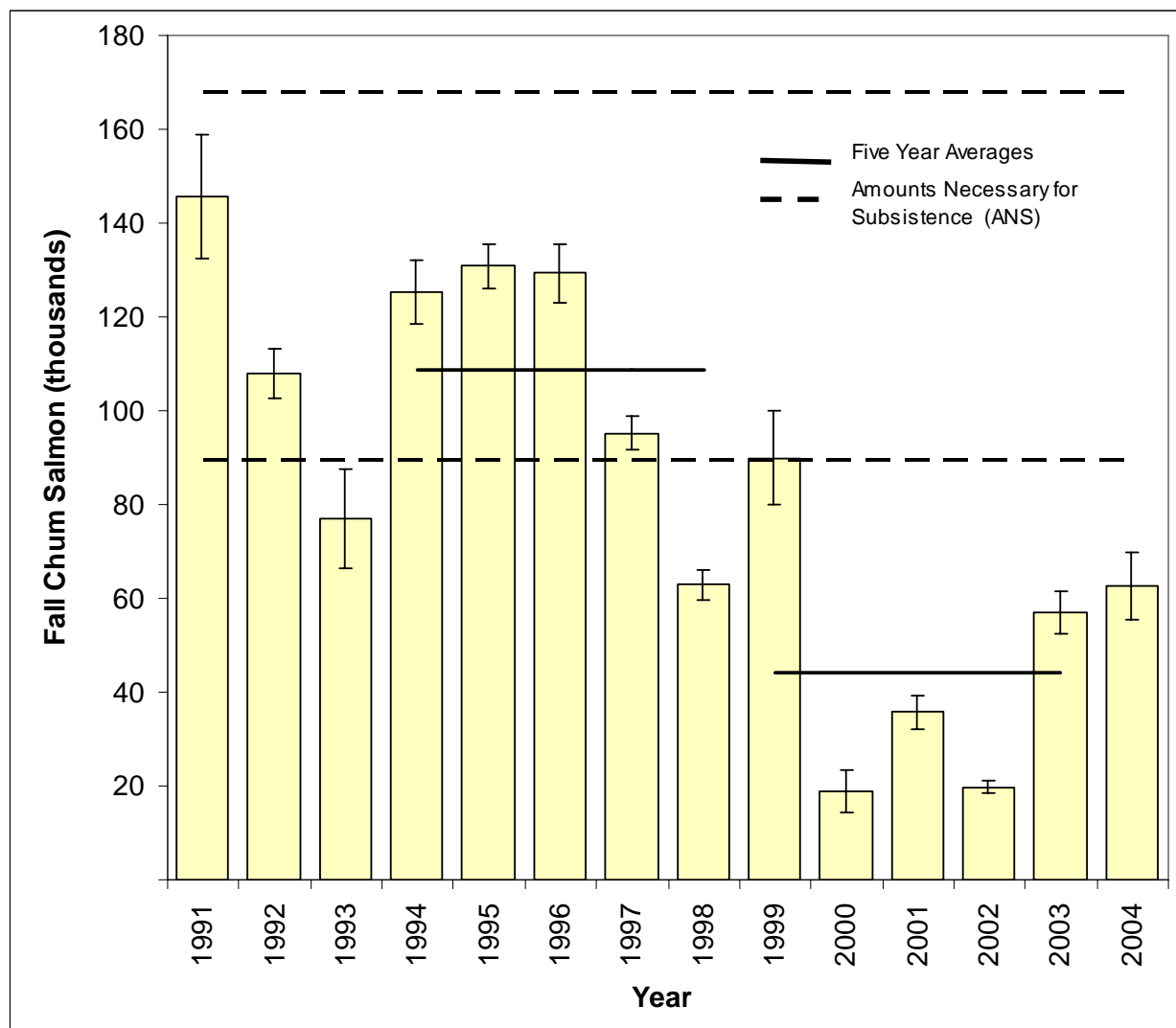
Note: Subsistence salmon harvest information was not collected in the Coastal District in 1991. Also includes the Amount Necessary for Subsistence (ANS) range of 45,500 to 66,704 Chinook salmon defined by the Alaska Board of Fisheries in 2001. Harvest estimates and 95% confidence intervals are provided.

Figure 5.—Estimated Chinook salmon subsistence harvest, Yukon Area, 1991–2004.



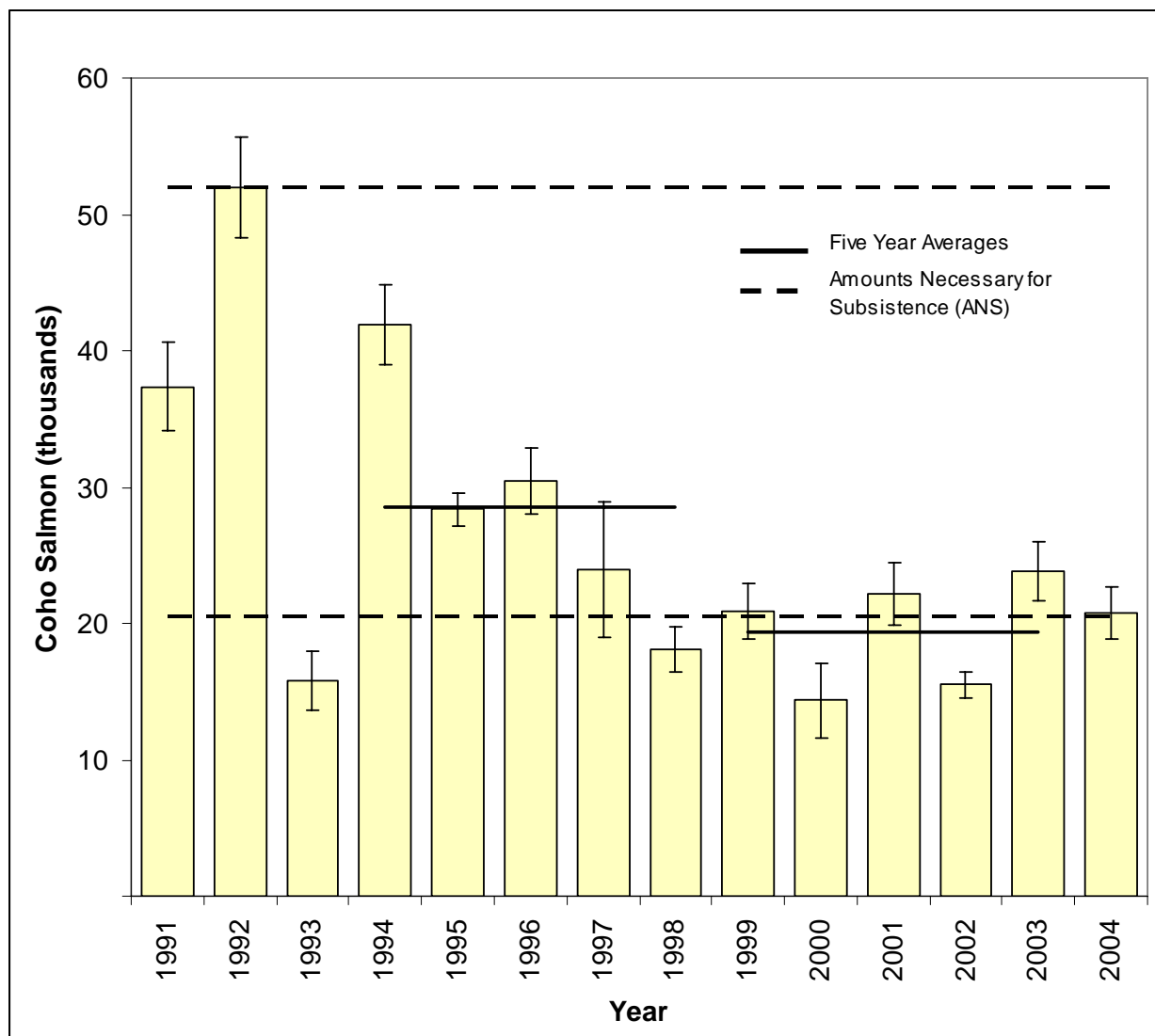
Note: Subsistence salmon harvest information was not collected in the Coastal District in 1991. Does not include summer chum salmon carcasses retained for subsistence use from the commercial roe fishery (most significant in 1995 and 1996). Also includes the Amount Necessary for Subsistence (ANS) range of 83,500 to 142,192 summer chum salmon defined by the Alaska Board of Fisheries in 2001. Harvest estimates and 95% confidence intervals are provided.

Figure 6.—Estimated summer chum salmon subsistence harvest, Yukon Area, 1991–2004.



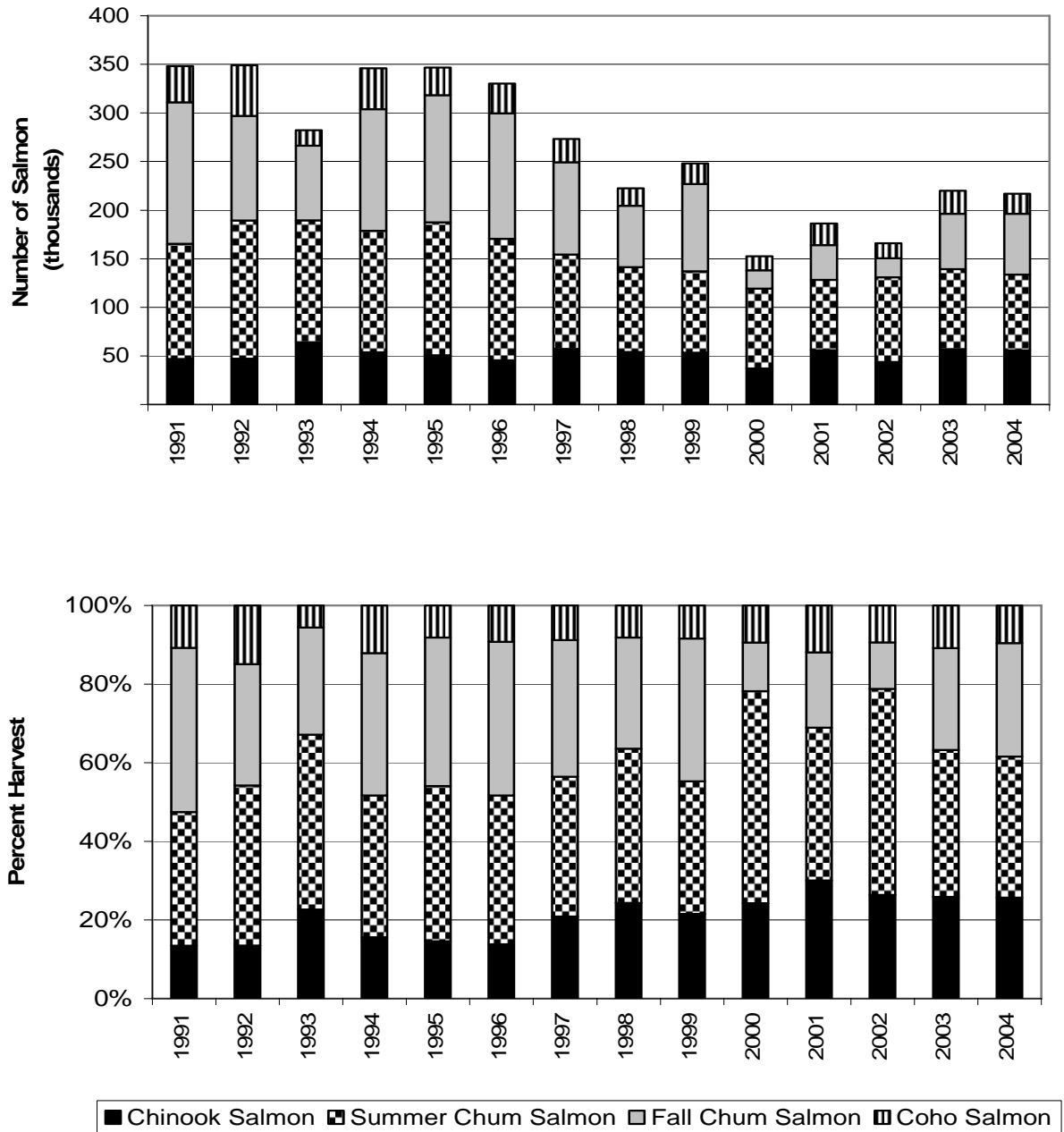
Note: Subsistence salmon harvest information was not collected in the Coastal District in 1991. Does not include fall chum salmon carcasses retained for subsistence use from the commercial roe fishery (most significant in 1995 and 1996). Does not include approximately 14,500 to 15,000 coho salmon obtained from the Valdez Fisheries Development Association as part of Eagle's fall chum salmon replacement subsistence salmon fishery in 2001 and 2003. Also includes the Amount Necessary for Subsistence (ANS) range of 89,500 to 167,900 fall chum salmon defined by the Alaska Board of Fisheries in 2001. Harvest estimates and 95% confidence intervals are provided.

Figure 7.—Estimated fall chum salmon subsistence harvest, Yukon Area, 1991–2004.



Note: Subsistence salmon harvest information was not collected in the Coastal District in 1991. Coho salmon carcasses retained for subsistence use from the commercial roe fishery are not included (most significant in 2003). Also includes the Amount Necessary for Subsistence (ANS) range of 20,500 to 51,980 coho salmon defined by the Alaska Board of Fisheries in 2001. Harvest estimates and 95% confidence intervals are provided.

Figure 8.—Estimated coho salmon subsistence harvest, Yukon Area, 1991–2004.



Note: Subsistence salmon harvest information was not collected in the Coastal District in 1991. Does not include summer chum, fall chum, and coho salmon carcasses retained for subsistence use from the commercial roe fishery. Does not include approximately 14,500 to 15,000 coho salmon obtained from the Valdez Fisheries Development Association as part of Eagle's fall chum salmon replacement subsistence salmon fishery in 2001 and 2003.

Figure 9.—Estimated total subsistence salmon harvest, Yukon Area, 1991–2004.

APPENDIX A. 2004 HARVEST INFORMATION

Appendix A1.–Estimated Chinook salmon subsistence harvest in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
																					Total		Est	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	CI (95%) (+/-)
Hooper Bay	-	-	-	-	74	18	0.3	0.3	71	18	13.3	9.6	44	37	1.2	0.2	4	4	5.0	0.0	193	77	1,042	1,338
Scammon Bay	1	0	-	-	23	6	7.3	5.6	38	9	6.1	2.1	20	16	29.8	2.3	-	-	-	-	82	31	996	313
Coastal District	<i>1</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>97</i>	<i>24</i>	<i>2.0</i>	<i>1.4</i>	<i>109</i>	<i>27</i>	<i>10.8</i>	<i>6.3</i>	<i>64</i>	<i>53</i>	<i>10.2</i>	<i>0.7</i>	<i>4</i>	<i>4</i>	<i>5.0</i>	<i>0.0</i>	<i>275</i>	<i>108</i>	<i>2,038</i>	<i>1,375</i>
Nunam Iqua	-	-	-	-	5	4	6.8	3.0	6	3	5.7	4.0	20	13	27.5	6.4	1	1	28.0	-	32	21	647	255
Alakanuk	1	0	-	-	42	13	1.5	0.8	45	12	13.2	4.5	36	33	17.6	1.3	-	-	-	-	124	58	1,292	415
Emmonak	3	0	-	-	68	25	1.9	0.8	40	16	17.8	5.7	47	42	18.4	1.0	3	2	7.5	0.3	161	85	1,725	473
Kotlik	-	-	-	-	26	6	1.0	0.7	29	6	6.0	3.6	29	27	28.3	1.3	3	3	12.7	0.0	87	42	1,058	219
District 1	<i>4</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>141</i>	<i>48</i>	<i>1.8</i>	<i>0.5</i>	<i>120</i>	<i>37</i>	<i>12.6</i>	<i>2.7</i>	<i>132</i>	<i>115</i>	<i>21.7</i>	<i>1.1</i>	<i>7</i>	<i>6</i>	<i>12.6</i>	<i>0.1</i>	<i>404</i>	<i>206</i>	<i>4,722</i>	<i>713</i>
Mountain Village	-	-	-	-	44	8	7.3	3.2	50	9	13.8	6.0	46	40	22.7	1.0	2	2	154.5	0.0	142	59	2,362	658
Pitkas Point	1	1	10.0	0.0	5	3	0.0	0.0	4	4	4.3	0.0	14	12	41.6	4.6	1	0	-	-	25	20	609	127
St. Mary's	-	-	-	-	32	8	16.0	6.7	37	8	13.8	2.8	32	28	27.7	1.3	7	6	64.3	7.2	108	50	2,357	484
Pilot Station	-	-	-	-	37	14	6.0	2.9	34	14	22.6	5.6	23	17	29.9	3.0	1	1	60.0	-	95	46	1,741	447
Marshall	-	-	-	-	19	4	0.0	0.0	30	6	24.0	9.2	23	22	55.2	1.9	-	-	-	-	72	32	1,990	551
District 2	<i>1</i>	<i>1</i>	<i>10.0</i>	<i>0.0</i>	<i>137</i>	<i>37</i>	<i>7.7</i>	<i>2.0</i>	<i>155</i>	<i>41</i>	<i>17.4</i>	<i>3.0</i>	<i>138</i>	<i>119</i>	<i>32.4</i>	<i>0.9</i>	<i>11</i>	<i>9</i>	<i>81.9</i>	<i>5.1</i>	<i>442</i>	<i>207</i>	<i>9,059</i>	<i>1,089</i>
Russian Mission	-	-	-	-	20	4	41.0	17.4	27	8	34.4	6.9	14	13	42.1	2.6	-	-	-	-	61	25	2,337	776
Holy Cross	-	-	-	-	12	4	0.0	0.0	16	9	28.7	5.0	19	15	77.8	5.1	1	1	56.0	-	48	29	1,993	246
Shageluk	-	-	-	-	5	2	0.0	0.0	11	7	12.1	3.3	7	5	4.4	1.6	6	5	42.2	6.5	29	19	418	108
District 3	<i>0</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>37</i>	<i>10</i>	<i>22.2</i>	<i>9.4</i>	<i>54</i>	<i>24</i>	<i>28.2</i>	<i>3.8</i>	<i>40</i>	<i>33</i>	<i>52.5</i>	<i>2.6</i>	<i>7</i>	<i>6</i>	<i>44.2</i>	<i>5.6</i>	<i>138</i>	<i>73</i>	<i>4,748</i>	<i>821</i>
Anvik	-	-	-	-	11	8	0.0	0.0	13	11	66.0	9.1	5	5	121.6	0.0	2	2	61.0	0.0	31	26	1,588	231
Grayling	-	-	-	-	8	2	27.5	6.5	19	5	30.4	12.2	14	13	42.5	2.8	3	2	159.0	62.9	44	22	1,869	600
Kaltag	1	0	-	-	11	3	0.0	0.0	39	10	33.3	6.8	5	5	50.4	0.0	1	1	105.0	-	57	19	1,656	517
Nulato	-	-	-	-	36	7	46.4	11.4	36	8	54.6	9.4	14	12	106.2	12.8	1	1	75.0	-	87	28	5,199	1,100
Koyukuk	-	-	-	-	7	5	0.0	0.0	11	10	12.9	1.9	3	3	23.3	0.0	3	3	62.7	0.0	24	21	400	40
Galena	2	1	52.0	0.0	92	18	8.0	5.1	51	13	24.9	4.7	10	8	108.9	16.3	5	5	19.2	0.0	160	45	3,296	1,085
Ruby	-	-	-	-	42	7	0.0	0.0	8	3	85.7	30.4	7	7	28.3	0.0	4	4	184.3	0.0	61	21	1,620	477
Huslia	-	-	-	-	46	7	0.7	0.7	17	4	0.0	0.0	7	5	11.4	2.9	4	3	43.0	17.3	74	19	285	153
Hughes	-	-	-	-	6	4	0.0	0.0	9	7	2.6	1.2	4	3	4.7	2.3	3	2	83.0	38.7	22	16	291	229
Allakaket	-	-	-	-	27	6	0.0	0.0	12	4	0.0	0.0	1	1	0.0	-	6	6	10.8	0.0	46	17	65	0
Alatna	-	-	-	-	3	2	0.0	0.0	2	2	0.0	0.0	-	-	-	-	-	-	-	-	5	4	0	0
Bettles	1	0	-	-	18	10	0.0	0.0	1	0	-	-	-	-	-	-	-	-	-	-	20	10	0	0
District 4	<i>4</i>	<i>1</i>	<i>52.0</i>	<i>0.0</i>	<i>307</i>	<i>79</i>	<i>8.7</i>	<i>2.0</i>	<i>218</i>	<i>77</i>	<i>31.4</i>	<i>2.8</i>	<i>70</i>	<i>62</i>	<i>62.8</i>	<i>3.5</i>	<i>32</i>	<i>29</i>	<i>71.4</i>	<i>7.3</i>	<i>631</i>	<i>248</i>	<i>16,269</i>	<i>1,837</i>
Tanana	-	-	-	-	54	22	8.1	2.7	18	7	0.0	0.0	6	5	47.0	10.4	12	11	164.0	16.2	90	45	2,689	490
Stevens Village	1	0	-	-	9	4	30.3	22.5	12	3	122.0	52.8	6	5	60.6	10.4	2	2	147.0	0.0	30	14	2,394	1,310
Birch Creek	-	-	-	-	4	1	0.0	-	5	3	16.3	10.3	-	-	-	-	-	-	-	-	9	4	82	101
Beaver	4	0	-	-	10	6	0.0	0.0	10	6	58.7	13.5	6	5	45.2	8.2	-	-	-	-	30	17	858	281
Fort Yukon	-	-	-	-	103	20	9.5	5.4	34	6	28.0	22.3	16	13	85.4	8.6	8	6	141.7	32.5	161	45	4,430	1,935
Venetie	1	0	-	-	21	11	4.5	3.1	9	9	20.8	0.0	2	2	0.0	0.0	2	2	35.0	0.0	35	24	352	129
Chalkyitsik	-	-	-	-	21	13	0.0	0.0	6	4	10.0	3.3	2	1	0.0	-	-	-	-	-	29	18	60	39
District 5	<i>6</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>222</i>	<i>77</i>	<i>8.0</i>	<i>2.8</i>	<i>94</i>	<i>38</i>	<i>35.4</i>	<i>10.6</i>	<i>38</i>	<i>31</i>	<i>60.1</i>	<i>4.5</i>	<i>24</i>	<i>21</i>	<i>144.4</i>	<i>13.5</i>	<i>384</i>	<i>167</i>	<i>10,865</i>	<i>2,410</i>
Survey Totals	16	2	38.0	0.0	941	275	7.2	1.1	750	244	22.8	2.0	482	413	34.8	0.8	85	75	83.2	4.8	2,274	1,009	47,701	3,666

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A2.—Estimated summer chum salmon subsistence harvest in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
																					Total	Est	CI (95%)	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	(+/-)
Hooper Bay	-	-	-	-	74	18	5.4	3.1	71	18	21.8	11.0	44	37	22.8	2.5	4	4	72.0	0.0	193	77	3,242	1,606
Scammon Bay	1	0	-	-	23	6	40.0	34.4	38	9	43.8	15.1	20	16	121.8	9.9	-	-	-	-	82	31	5,020	1,956
Coastal District	<i>1</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>97</i>	<i>24</i>	<i>13.6</i>	<i>8.5</i>	<i>109</i>	<i>27</i>	<i>29.4</i>	<i>8.9</i>	<i>64</i>	<i>53</i>	<i>53.8</i>	<i>3.5</i>	<i>4</i>	<i>4</i>	<i>72.0</i>	<i>0.0</i>	<i>275</i>	<i>108</i>	<i>8,262</i>	<i>2,531</i>
Nunam Iqua	-	-	-	-	5	4	21.3	9.5	6	3	42.3	21.7	20	13	113.0	14.7	1	1	78.0	0.0	32	21	2,698	636
Alakanuk	1	0	-	-	42	13	24.4	11.3	45	12	67.5	21.9	36	33	66.5	3.6	-	-	-	-	124	58	6,455	2,155
Emmonak	3	0	-	-	68	25	6.2	3.0	40	16	59.0	11.1	47	42	96.2	4.4	3	2	207.5	76.5	161	85	7,925	1,131
Kotlik	0	0	-	-	26	6	0.2	0.1	29	6	14.5	9.1	29	27	76.0	3.2	3	3	15.3	0.0	87	42	2,674	550
District 1	<i>4</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>141</i>	<i>48</i>	<i>11.0</i>	<i>3.7</i>	<i>120</i>	<i>37</i>	<i>50.6</i>	<i>9.3</i>	<i>132</i>	<i>115</i>	<i>86.2</i>	<i>3.0</i>	<i>7</i>	<i>6</i>	<i>106.6</i>	<i>32.8</i>	<i>404</i>	<i>206</i>	<i>19,752</i>	<i>2,575</i>
Mountain Village	-	-	-	-	44	8	62.3	27.4	50	9	38.6	12.1	46	40	111.5	4.2	2	2	439.5	0.0	142	59	10,676	2,673
Pitkas Point	1	1	23.0	0.0	5	3	1.7	1.1	4	4	38.8	0.0	14	12	37.9	5.7	1	0	-	-	25	20	717	156
St. Mary's	-	-	-	-	32	8	21.9	11.2	37	8	43.9	17.1	32	28	98.4	4.2	7	6	217.5	17.5	108	50	6,994	1,469
Pilot Station	-	-	-	-	37	14	21.2	9.9	34	14	35.7	6.8	23	17	72.5	7.4	1	1	265.0	0.0	95	46	3,931	915
Marshall	-	-	-	-	19	4	0.0	0.0	30	6	21.8	7.6	23	22	48.3	2.1	-	-	-	-	72	32	1,765	457
District 2	<i>1</i>	<i>1</i>	<i>23.0</i>	<i>0.0</i>	<i>137</i>	<i>37</i>	<i>30.9</i>	<i>9.6</i>	<i>155</i>	<i>41</i>	<i>36.0</i>	<i>6.0</i>	<i>138</i>	<i>119</i>	<i>84.0</i>	<i>2.2</i>	<i>11</i>	<i>9</i>	<i>266.7</i>	<i>12.2</i>	<i>442</i>	<i>207</i>	<i>24,083</i>	<i>3,221</i>
Russian Mission	-	-	-	-	20	4	11.3	8.6	27	8	12.9	4.4	14	13	22.2	2.0	-	-	-	-	61	25	884	414
Holy Cross	-	-	-	-	12	4	0.0	0.0	16	9	1.0	0.3	19	15	13.7	1.7	1	1	0.0	0.0	48	29	276	65
Shageluk	-	-	-	-	5	2	0.0	0.0	11	7	12.9	5.0	7	5	79.8	23.6	6	5	183.0	27.3	29	19	1,798	469
District 3	<i>0</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>37</i>	<i>10</i>	<i>6.1</i>	<i>4.7</i>	<i>54</i>	<i>24</i>	<i>9.4</i>	<i>2.4</i>	<i>40</i>	<i>33</i>	<i>28.2</i>	<i>4.3</i>	<i>7</i>	<i>6</i>	<i>156.9</i>	<i>23.4</i>	<i>138</i>	<i>73</i>	<i>2,958</i>	<i>629</i>
Anvik	-	-	-	-	11	8	0.0	0.0	13	11	3.4	0.8	5	5	6.6	0.0	2	2	85.5	0.0	31	26	248	20
Grayling	-	-	-	-	8	2	0.0	0.0	19	5	0.0	0.0	14	13	22.7	4.1	3	2	270.5	132.5	44	22	1,129	787
Kaltag	1	0	-	-	11	3	0.0	0.0	39	10	0.3	0.3	5	5	0.2	0.0	1	1	200.0	0.0	57	19	213	20
Nulato	-	-	-	-	36	7	2.3	1.8	36	8	2.1	1.5	14	12	2.8	0.4	1	1	0.0	0.0	87	28	198	164
Koyukuk	-	-	-	-	7	5	0.0	0.0	11	10	0.4	0.1	3	3	36.7	0.0	3	3	71.7	0.0	24	21	329	2
Galena	2	1	0.0	0.0	92	18	0.1	0.0	51	13	4.1	2.4	10	8	44.4	17.7	5	5	25.0	0.0	160	45	782	420
Ruby	-	-	-	-	42	7	0.0	0.0	8	3	20.7	16.3	7	7	10.3	0.0	4	4	443.3	0.0	61	21	2,010	256
Huslia	-	-	-	-	46	7	0.9	0.8	17	4	0.0	0.0	7	5	13.4	5.1	4	3	927.7	187.9	74	19	3,844	1,477
Hughes	-	-	-	-	6	4	0.0	0.0	9	7	14.3	6.7	4	3	70.0	21.8	3	2	1138.0	497.7	22	16	3,823	2,934
Allakaket	-	-	-	-	27	6	0.0	0.0	12	4	25.0	20.4	1	1	0.0	0.0	6	6	344.5	0.0	46	17	2,367	480
Alatna	-	-	-	-	3	2	0.0	0.0	2	2	8.0	0.0	-	-	-	-	-	-	-	-	5	4	16	0
Bettles	1	0	-	-	18	10	0.0	0.0	1	0	-	-	-	-	-	-	-	-	-	-	20	10	0	0
District 4	<i>4</i>	<i>1</i>	<i>0.0</i>	<i>0.0</i>	<i>307</i>	<i>79</i>	<i>0.4</i>	<i>0.2</i>	<i>218</i>	<i>77</i>	<i>4.4</i>	<i>1.4</i>	<i>70</i>	<i>62</i>	<i>19.9</i>	<i>3.0</i>	<i>32</i>	<i>29</i>	<i>390.2</i>	<i>53.7</i>	<i>631</i>	<i>248</i>	<i>14,959</i>	<i>3,451</i>
Tanana	-	-	-	-	54	22	8.0	4.4	18	7	0.0	0.0	6	5	7.6	2.4	12	11	84.4	10.2	90	45	1,490	528
Stevens Village	1	0	-	-	9	4	0.0	0.0	12	3	9.0	7.8	6	5	0.0	0.0	2	2	0.0	0.0	30	14	108	183
Birch Creek	-	-	-	-	4	1	0.0	-	5	3	0.0	0.0	-	-	-	-	-	-	-	-	9	4	0	0
Beaver	4	0	-	-	10	6	0.0	0.0	10	6	0.0	0.0	6	5	0.4	0.2	-	-	-	-	30	17	2	2
Fort Yukon	-	-	-	-	103	20	0.2	0.2	34	6	16.7	15.1	16	13	12.5	5.0	8	6	50.0	25.0	161	45	1,187	1,093
Venetie	1	0	-	-	21	11	0.0	0.0	9	9	1.7	0.0	2	2	0.0	0.0	2	2	0.0	0.0	35	24	15	0
Chalkyitsik	-	-	-	-	21	13	0.0	0.0	6	4	0.0	0.0	2	1	0.0	0.0	-	-	-	-	29	18	0	0
District 5	<i>6</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>222</i>	<i>77</i>	<i>2.0</i>	<i>1.1</i>	<i>94</i>	<i>38</i>	<i>7.3</i>	<i>5.6</i>	<i>38</i>	<i>31</i>	<i>6.5</i>	<i>2.1</i>	<i>24</i>	<i>21</i>	<i>58.8</i>	<i>9.8</i>	<i>384</i>	<i>167</i>	<i>2,802</i>	<i>1,228</i>
Survey Totals	16	2	7.7	0.0	941	275	8.4	1.8	750	244	22.7	2.5	482	413	59.9	1.3	85	75	222.6	21.0	2,274	1,009	72,816	6,101

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A3.—Estimated fall chum salmon subsistence harvest in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
																					Total	Est	CI (95%)	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	(+/-)
Hooper Bay	-	-	-	-	74	18	0.0	0.0	71	18	0.0	0.0	44	37	6.0	1.9	4	4	0.0	0.0	193	77	264	168
Scammon Bay	1	0	-	-	23	6	0.0	0.0	38	9	0.0	0.0	20	16	2.8	0.7	-	-	-	-	82	31	56	27
Coastal District	<i>1</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>97</i>	<i>24</i>	<i>0.0</i>	<i>0.0</i>	<i>109</i>	<i>27</i>	<i>0.0</i>	<i>0.0</i>	<i>64</i>	<i>53</i>	<i>5.0</i>	<i>1.4</i>	<i>4</i>	<i>4</i>	<i>0.0</i>	<i>0.0</i>	<i>275</i>	<i>108</i>	<i>320</i>	<i>170</i>
Nunam Iqua	-	-	-	-	5	4	0.0	0.0	6	3	0.0	0.0	20	13	2.5	0.8	1	1	0.0	0.0	32	21	49	31
Alakanuk	1	0	-	-	42	13	0.1	0.1	45	11	18.2	15.8	36	33	3.7	0.5	-	-	-	-	124	57	953	1,394
Emmonak	3	0	-	-	68	25	0.0	0.0	40	16	2.4	1.1	47	42	3.7	0.8	3	2	0.5	0.3	161	85	275	114
Kotlik	-	-	-	-	26	6	0.0	0.0	29	6	0.5	0.4	29	27	4.7	0.8	3	3	1.0	0.0	87	42	155	50
District 1	<i>4</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>141</i>	<i>48</i>	<i>0.0</i>	<i>0.0</i>	<i>120</i>	<i>36</i>	<i>7.8</i>	<i>5.9</i>	<i>132</i>	<i>115</i>	<i>3.7</i>	<i>0.4</i>	<i>7</i>	<i>6</i>	<i>0.6</i>	<i>0.1</i>	<i>404</i>	<i>205</i>	<i>1,432</i>	<i>1,400</i>
Mountain Village	-	-	-	-	44	8	0.0	0.0	50	9	0.6	0.5	46	40	5.6	0.8	2	2	104.5	0.0	142	59	493	85
Pitkas Point	1	1	0.0	0.0	5	3	0.0	0.0	4	4	0.0	0.0	14	12	0.0	0.0	1	0	-	-	25	20	0	0
St. Mary's	-	-	-	-	32	8	0.0	0.0	37	8	0.4	0.2	32	28	1.7	0.3	7	6	5.0	1.9	108	50	104	37
Pilot Station	-	-	-	-	37	14	0.2	0.2	34	14	2.7	2.1	23	17	10.9	3.5	1	1	30.0	0.0	95	46	382	210
Marshall	-	-	-	-	19	4	0.0	0.0	30	6	0.3	0.3	23	22	12.2	1.2	-	-	-	-	72	32	291	56
District 2	<i>1</i>	<i>1</i>	<i>0.0</i>	<i>0.0</i>	<i>137</i>	<i>37</i>	<i>0.1</i>	<i>0.0</i>	<i>155</i>	<i>41</i>	<i>0.9</i>	<i>0.5</i>	<i>138</i>	<i>119</i>	<i>6.1</i>	<i>0.7</i>	<i>11</i>	<i>9</i>	<i>27.4</i>	<i>1.3</i>	<i>442</i>	<i>207</i>	<i>1,270</i>	<i>236</i>
Russian Mission	-	-	-	-	20	4	0.0	0.0	27	8	3.9	3.3	14	13	4.8	0.9	-	-	-	-	61	25	172	174
Holy Cross	-	-	-	-	12	4	0.0	0.0	16	9	0.0	0.0	19	15	3.1	0.9	1	1	16.0	0.0	48	29	76	32
Shageluk	-	-	-	-	5	2	0.0	0.0	11	7	0.0	0.0	7	5	0.0	0.0	6	5	8.4	3.2	29	19	50	38
District 3	<i>0</i>	<i>0</i>	<i>-</i>	<i>-</i>	<i>37</i>	<i>10</i>	<i>0.0</i>	<i>0.0</i>	<i>54</i>	<i>24</i>	<i>1.9</i>	<i>1.6</i>	<i>40</i>	<i>33</i>	<i>3.2</i>	<i>0.5</i>	<i>7</i>	<i>6</i>	<i>9.5</i>	<i>2.8</i>	<i>138</i>	<i>73</i>	<i>298</i>	<i>181</i>
Anvik	-	-	-	-	11	8	0.0	0.0	13	11	0.0	0.0	5	5	13.6	0.0	2	2	165.0	0.0	31	26	398	0
Grayling	-	-	-	-	8	2	0.0	0.0	19	5	0.0	0.0	14	13	18.3	4.2	3	2	3.5	2.0	44	22	267	117
Kaltag	1	0	-	-	11	3	0.0	0.0	39	10	0.0	0.0	5	5	10.0	0.0	1	1	45.0	0.0	57	19	95	0
Nulato	-	-	-	-	36	7	14.7	8.6	36	8	13.3	7.4	14	12	17.1	2.4	1	1	0.0	0.0	87	28	1,246	806
Koyukuk	-	-	-	-	7	5	0.0	0.0	11	10	0.0	0.0	3	3	33.3	0.0	3	3	81.3	0.0	24	21	344	0
Galena	2	1	0.0	0.0	92	18	1.8	1.1	51	13	11.5	4.3	10	8	53.6	17.1	5	5	59.6	0.0	160	45	1,587	576
Ruby	-	-	-	-	42	7	0.0	0.0	8	3	20.3	16.1	7	7	0.0	0.0	4	4	225.3	0.0	61	21	1,064	252
Huslia	-	-	-	-	46	7	0.4	0.4	17	4	0.0	0.0	7	5	2.6	1.0	4	3	275.3	66.4	74	19	1,139	522
Hughes	-	-	-	-	6	4	0.0	0.0	9	7	0.0	0.0	4	3	16.7	6.0	3	2	10.0	5.8	22	16	97	58
Allakaket	-	-	-	-	27	6	0.0	0.0	12	4	5.0	4.1	1	1	0.0	0.0	6	6	151.3	0.0	46	17	968	96
Alatna	-	-	-	-	3	2	0.0	0.0	2	2	0.0	0.0	-	-	-	-	-	-	-	-	5	4	0	0
Bettles	1	0	-	-	18	10	0.0	0.0	1	0	-	-	-	-	-	-	-	-	-	-	20	10	0	0
District 4	<i>4</i>	<i>1</i>	<i>0.0</i>	<i>0.0</i>	<i>307</i>	<i>79</i>	<i>2.3</i>	<i>1.1</i>	<i>218</i>	<i>77</i>	<i>5.9</i>	<i>1.7</i>	<i>70</i>	<i>62</i>	<i>19.1</i>	<i>2.7</i>	<i>32</i>	<i>29</i>	<i>120.9</i>	<i>8.3</i>	<i>631</i>	<i>248</i>	<i>7,205</i>	<i>1,160</i>
Tanana	-	-	-	-	54	22	100.0	53.4	18	7	0.0	0.0	6	5	3.8	1.6	12	11	1474.6	139.5	90	45	23,118	6,532
Stevens Village	1	0	-	-	9	4	0.0	0.0	12	3	0.0	0.0	6	5	0.0	0.0	2	2	540.0	0.0	30	14	1,080	0
Birch Creek	-	-	-	-	4	1	0.0	0.0	5	3	0.0	0.0	0	0	-	-	-	-	-	-	9	4	0	0
Beaver	4	0	-	-	10	6	0.0	0.0	10	6	0.0	0.0	6	5	8.0	3.3	-	-	-	-	30	17	48	38
Fort Yukon	-	-	-	-	103	20	3.0	2.7	34	6	0.0	0.0	16	13	230.4	40.6	8	6	413.3	97.4	161	45	7,302	2,060
Venetie	1	0	-	-	21	11	11.8	6.4	9	9	68.3	0.0	2	2	10.0	0.0	2	2	600.0	0.0	35	24	2,083	262
Chalkyitsik	-	-	-	-	21	13	19.2	11.9	6	4	12.5	7.2	2	1	0.0	0.0	-	-	-	-	29	18	479	496
District 5	<i>6</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>222</i>	<i>77</i>	<i>28.7</i>	<i>13.1</i>	<i>94</i>	<i>38</i>	<i>7.3</i>	<i>0.5</i>	<i>38</i>	<i>31</i>	<i>99.4</i>	<i>17.1</i>	<i>24</i>	<i>21</i>	<i>970.1</i>	<i>76.9</i>	<i>384</i>	<i>167</i>	<i>34,110</i>	<i>6,872</i>
Survey Totals	16	2	0.0	0.0	941	275	7.5	3.1	750	243	4.2	1.1	482	413	14.3	1.4	85	75	327.3	22.2	2,274	1,008	44,635	7,116

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A4.—Estimated coho salmon subsistence harvest in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
																					Total		Est	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	CI (95%) (+/-)
Hooper Bay	-	-	-	-	74	18	0.1	0.1	71	18	0.0	0.0	44	37	0.0	0.0	4	4	0.0	0.0	193	77	9	14
Scammon Bay	1	0	-	-	23	6	0.0	0.0	38	9	0.0	0.0	20	16	2.7	0.6	-	-	-	-	82	31	54	25
Coastal District	<i>1</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>97</i>	<i>24</i>	<i>0.1</i>	<i>0.1</i>	<i>109</i>	<i>27</i>	<i>0.0</i>	<i>0.0</i>	<i>64</i>	<i>53</i>	<i>0.9</i>	<i>0.2</i>	<i>4</i>	<i>4</i>	<i>0.0</i>	<i>0.0</i>	<i>275</i>	<i>108</i>	<i>63</i>	<i>29</i>
Nunam Iqua	-	-	-	-	5	4	0.0	0.0	6	3	0.7	0.5	20	13	3.8	1.1	1	1	0.0	0.0	32	21	79	43
Alakanuk	1	0	-	-	42	13	0.0	0.0	45	12	2.1	1.4	36	33	3.2	0.4	-	-	-	-	124	58	207	131
Emmonak	3	0	-	-	68	25	0.2	0.2	40	16	1.9	1.0	47	42	2.4	0.3	3	2	0.5	0.3	161	85	201	87
Kotlik	-	-	-	-	26	6	2.3	2.0	29	6	0.3	0.3	29	27	16.1	2.1	3	3	0.0	0.0	87	42	536	157
District 1	<i>4</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>141</i>	<i>48</i>	<i>0.5</i>	<i>0.4</i>	<i>120</i>	<i>37</i>	<i>1.5</i>	<i>0.6</i>	<i>132</i>	<i>115</i>	<i>5.8</i>	<i>0.5</i>	<i>7</i>	<i>6</i>	<i>0.2</i>	<i>0.1</i>	<i>404</i>	<i>206</i>	<i>1,023</i>	<i>226</i>
Mountain Village	-	-	-	-	44	8	0.0	0.0	50	9	0.0	0.0	46	40	2.1	0.4	2	2	70.5	0.0	142	59	236	33
Pitkas Point	1	1	0.0	0.0	5	3	0.0	0.0	4	4	0.0	0.0	14	12	0.0	0.0	1	0	-	-	25	20	0	0
St. Mary's	-	-	-	-	32	8	0.0	0.0	37	8	4.3	2.8	32	28	1.5	0.3	7	6	7.5	2.8	108	50	258	208
Pilot Station	-	-	-	-	37	14	0.0	0.0	34	14	0.3	0.2	23	17	2.2	0.9	1	1	0.0	0.0	95	46	60	43
Marshall	-	-	-	-	19	4	0.0	0.0	30	6	0.5	0.3	23	22	17.8	2.9	0	0	-	-	72	32	425	130
District 2	<i>1</i>	<i>1</i>	<i>0.0</i>	<i>0.0</i>	<i>137</i>	<i>37</i>	<i>0.0</i>	<i>0.0</i>	<i>155</i>	<i>41</i>	<i>1.2</i>	<i>0.7</i>	<i>138</i>	<i>119</i>	<i>4.4</i>	<i>0.5</i>	<i>11</i>	<i>9</i>	<i>19.4</i>	<i>2.0</i>	<i>442</i>	<i>207</i>	<i>979</i>	<i>251</i>
Russian Mission	-	-	-	-	20	4	0.0	0.0	27	8	3.4	2.8	14	13	4.3	0.8	-	-	-	-	61	25	151	151
Holy Cross	-	-	-	-	12	4	0.0	0.0	16	9	0.6	0.4	19	15	0.9	0.4	1	1	0.0	0.0	48	29	27	20
Shageluk	-	-	-	-	5	2	0.0	0.0	11	7	7.9	4.7	7	5	0.0	0.0	6	5	3.2	0.8	29	19	106	103
District 3	<i>0</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>37</i>	<i>10</i>	<i>0.0</i>	<i>0.0</i>	<i>54</i>	<i>24</i>	<i>3.5</i>	<i>1.7</i>	<i>40</i>	<i>33</i>	<i>2.0</i>	<i>0.3</i>	<i>7</i>	<i>6</i>	<i>2.7</i>	<i>0.7</i>	<i>138</i>	<i>73</i>	<i>284</i>	<i>184</i>
Anvik	-	-	-	-	11	8	0.0	0.0	13	11	0.5	0.2	5	5	35.0	0.0	2	2	53.5	0.0	31	26	288	5
Grayling	-	-	-	-	8	2	2.5	2.2	19	5	0.0	0.0	14	13	9.8	1.2	3	2	25.0	8.7	44	22	233	69
Kaltag	1	0	-	-	11	3	0.0	0.0	39	10	0.0	0.0	5	5	0.0	0.0	1	1	10.0	0.0	57	19	10	0
Nulato	-	-	-	-	36	7	0.0	0.0	36	8	5.1	2.2	14	12	1.3	0.5	1	1	0.0	0.0	87	28	203	157
Koyukuk	-	-	-	-	7	5	0.0	0.0	11	10	0.1	0.0	3	3	20.0	0.0	3	3	35.0	0.0	24	21	166	1
Galena	2	1	0.0	0.0	92	18	0.3	0.2	51	13	21.3	15.2	10	8	3.6	0.8	5	5	31.8	0.0	160	45	1,307	1,524
Ruby	-	-	-	-	42	7	0.0	0.0	8	3	51.7	40.8	7	7	0.9	0.0	4	4	280.3	0.0	61	21	1,540	640
Huslia	-	-	-	-	46	7	0.0	0.0	17	4	0.0	0.0	7	5	0.2	0.1	4	3	190.7	53.7	74	19	764	421
Hughes	-	-	-	-	6	4	0.0	0.0	9	7	1.4	0.7	4	3	16.7	4.4	3	2	10.0	5.8	22	16	110	50
Allakaket	-	-	-	-	27	6	0.0	0.0	12	4	0.0	0.0	1	1	0.0	0.0	6	6	2.8	0.0	46	17	17	0
Alatna	-	-	-	-	3	2	0.0	0.0	2	2	0.0	0.0	-	-	-	-	-	-	-	-	5	4	0	0
Bettles	1	0	-	-	18	10	0.0	0.0	1	0	-	-	-	-	-	-	-	-	-	-	20	10	0	0
District 4	<i>4</i>	<i>1</i>	<i>0.0</i>	<i>0.0</i>	<i>307</i>	<i>79</i>	<i>0.1</i>	<i>0.1</i>	<i>218</i>	<i>77</i>	<i>7.9</i>	<i>3.9</i>	<i>70</i>	<i>62</i>	<i>7.2</i>	<i>0.4</i>	<i>32</i>	<i>29</i>	<i>74.6</i>	<i>6.8</i>	<i>631</i>	<i>248</i>	<i>4,638</i>	<i>1,716</i>
Tanana	-	-	-	-	54	22	11.4	7.1	18	7	0.0	0.0	6	5	2.4	1.0	12	11	35.1	6.9	90	45	1,049	772
Stevens Village	1	0	-	-	9	4	0.0	0.0	12	3	0.0	0.0	6	5	0.0	0.0	2	2	50.0	0.0	30	14	100	0
Birch Creek	-	-	-	-	4	1	0.0	0.0	5	3	0.0	0.0	-	-	-	-	-	-	-	-	9	4	0	0
Beaver	4	0	-	-	10	6	0.0	0.0	10	6	0.0	0.0	6	5	0.0	0.0	-	-	-	-	30	17	0	0
Fort Yukon	-	-	-	-	103	20	0.0	0.0	34	6	0.0	0.0	16	13	0.4	0.2	8	6	1.7	0.8	161	45	19	14
Venetie	1	0	-	-	21	11	0.0	0.0	9	9	0.6	0.0	2	2	0.0	0.0	2	2	0.0	0.0	35	24	5	0
Chalkyitsik	-	-	-	-	21	13	0.0	0.0	6	4	7.5	4.3	2	1	0.0	0.0	-	-	-	-	29	18	45	51
District 5	<i>6</i>	<i>0</i>	<i>-</i>	<i>-</i>	<i>222</i>	<i>77</i>	<i>2.8</i>	<i>1.7</i>	<i>94</i>	<i>38</i>	<i>0.5</i>	<i>0.3</i>	<i>38</i>	<i>31</i>	<i>0.5</i>	<i>0.2</i>	<i>24</i>	<i>21</i>	<i>22.3</i>	<i>3.4</i>	<i>384</i>	<i>167</i>	<i>1,218</i>	<i>774</i>
Survey Totals	16	2	0.0	0.0	941	275	0.8	0.4	750	244	3.1	1.2	482	413	4.2	0.2	85	75	37.3	2.8	2,274	1,009	8,205	1,921

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A5.—Estimated Chinook salmon subsistence use in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
																					Total		Est	CI (95%)
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	(+/-)
Hooper Bay	-	-	-	-	74	18	0.3	0.3	71	18	11.6	9.6	44	37	0.9	0.1	4	4	2.0	0.0	193	77	899	1,334
Scammon Bay	1	0	-	-	23	6	5.8	4.4	38	9	3.9	1.2	20	16	29.5	2.8	-	-	-	-	82	31	872	242
Coastal District	<i>1</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>97</i>	<i>24</i>	<i>1.6</i>	<i>1.1</i>	<i>109</i>	<i>27</i>	<i>8.9</i>	<i>6.3</i>	<i>64</i>	<i>53</i>	<i>9.9</i>	<i>0.9</i>	<i>4</i>	<i>4</i>	<i>2.0</i>	<i>0.0</i>	<i>275</i>	<i>108</i>	<i>1,771</i>	<i>1,355</i>
Nunam Iqua	-	-	-	-	5	4	7.0	3.1	6	3	5.7	4.0	20	13	27.4	6.3	1	1	28.0	-	32	21	645	252
Alakanuk	1	0	-	-	42	13	1.5	0.8	45	12	13.2	4.5	36	33	16.5	1.3	-	-	-	-	124	58	1,251	414
Emmonak	3	0	-	-	68	25	1.7	0.7	40	16	16.6	5.8	47	42	16.1	0.8	3	2	7.5	0.3	161	85	1,558	470
Kotlik	-	-	-	-	26	6	1.0	0.7	29	6	6.0	3.6	29	27	24.3	1.2	3	3	12.7	0.0	87	42	942	216
District 1	<i>4</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>141</i>	<i>48</i>	<i>1.7</i>	<i>0.4</i>	<i>120</i>	<i>37</i>	<i>12.2</i>	<i>2.7</i>	<i>132</i>	<i>115</i>	<i>19.7</i>	<i>1.1</i>	<i>7</i>	<i>6</i>	<i>12.6</i>	<i>0.1</i>	<i>404</i>	<i>206</i>	<i>4,396</i>	<i>709</i>
Mountain Village	-	-	-	-	44	8	6.9	3.2	50	9	11.2	4.2	46	40	20.6	0.9	2	2	82.5	0.0	142	59	1,976	496
Pitkas Point	1	1	10.0	-	5	3	0.0	0.0	4	4	4.3	0.0	14	12	33.2	3.7	1	0	-	-	25	20	491	100
St. Mary's	-	-	-	-	32	8	12.3	4.6	37	8	14.0	2.8	32	28	26.7	1.3	7	6	49.8	4.9	108	50	2,114	369
Pilot Station	-	-	-	-	37	14	4.2	1.7	34	14	21.7	5.6	23	17	29.3	3.0	1	1	60.0	-	95	46	1,623	417
Marshall	-	-	-	-	19	4	0.0	0.0	30	6	20.2	6.4	23	22	45.4	1.8	-	-	-	-	72	32	1,648	385
District 2	<i>1</i>	<i>1</i>	<i>10.0</i>	<i>0.0</i>	<i>137</i>	<i>37</i>	<i>6.2</i>	<i>1.5</i>	<i>155</i>	<i>41</i>	<i>15.7</i>	<i>2.3</i>	<i>138</i>	<i>119</i>	<i>28.8</i>	<i>0.8</i>	<i>11</i>	<i>9</i>	<i>57.4</i>	<i>3.4</i>	<i>442</i>	<i>207</i>	<i>7,852</i>	<i>845</i>
Russian Mission	-	-	-	-	20	4	40.8	17.4	27	8	28.9	5.9	14	13	38.9	2.3	-	-	-	-	61	25	2,140	755
Holy Cross	-	-	-	-	12	4	0.0	0.0	16	9	27.7	5.1	19	15	65.3	5.2	1	1	6.0	-	48	29	1,690	251
Shageluk	-	-	-	-	5	2	0.0	0.0	11	7	12.1	3.3	7	5	3.8	1.3	6	5	40.6	6.6	29	19	404	108
District 3	<i>0</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>37</i>	<i>10</i>	<i>22.0</i>	<i>9.4</i>	<i>54</i>	<i>24</i>	<i>25.1</i>	<i>3.4</i>	<i>40</i>	<i>33</i>	<i>45.3</i>	<i>2.6</i>	<i>7</i>	<i>6</i>	<i>35.7</i>	<i>5.7</i>	<i>138</i>	<i>73</i>	<i>4,234</i>	<i>803</i>
Anvik	-	-	-	-	11	8	0.0	0.0	13	11	50.0	4.7	5	5	107.2	0.0	2	2	59.0	0.0	31	26	1,304	120
Grayling	-	-	-	-	8	2	27.5	6.5	19	5	22.4	6.7	14	13	39.8	2.6	3	2	146.0	70.4	44	22	1,641	498
Kaltag	1	0	-	-	11	3	0.0	0.0	39	10	23.2	5.6	5	5	35.4	0.0	1	1	80.0	-	57	19	1,162	429
Nulato	-	-	-	-	36	7	46.1	11.3	36	8	42.9	9.3	14	12	83.1	12.6	1	1	50.0	-	87	28	4,418	1,090
Koyukuk	-	-	-	-	7	5	0.0	0.0	11	10	9.2	1.3	3	3	18.7	0.0	3	3	42.7	0.0	24	21	285	27
Galena	2	1	52.0	0.0	92	18	6.8	4.2	51	13	22.7	4.3	10	8	83.5	14.2	5	5	17.2	0.0	160	45	2,806	913
Ruby	-	-	-	-	42	7	0.0	0.0	8	3	79.3	32.4	7	7	27.0	0.0	4	4	169.8	0.0	61	21	1,503	508
Huslia	-	-	-	-	46	7	0.7	0.7	17	4	0.0	0.0	7	5	11.2	2.9	4	3	39.3	15.7	74	19	269	142
Hughes	-	-	-	-	6	4	0.0	0.0	9	7	1.0	0.5	4	3	2.7	1.3	3	2	68.0	30.0	22	16	224	177
Allakaket	-	-	-	-	27	6	0.0	0.0	12	4	0.0	0.0	1	1	0.0	-	6	6	10.2	0.0	46	17	61	0
Alatna	-	-	-	-	3	2	0.0	0.0	2	2	0.0	0.0	-	-	-	-	-	-	-	-	5	4	0	0
Bettles	1	0	-	-	18	10	0.0	0.0	1	0	-	-	-	-	-	-	-	-	-	-	20	10	0	0
District 4	<i>4</i>	<i>1</i>	<i>52.0</i>	<i>0.0</i>	<i>307</i>	<i>79</i>	<i>8.3</i>	<i>1.8</i>	<i>218</i>	<i>77</i>	<i>25.0</i>	<i>2.5</i>	<i>70</i>	<i>62</i>	<i>51.5</i>	<i>3.3</i>	<i>32</i>	<i>29</i>	<i>62.5</i>	<i>7.4</i>	<i>631</i>	<i>248</i>	<i>13,673</i>	<i>1,667</i>
Tanana	-	-	-	-	54	22	6.5	2.3	18	7	0.0	0.0	6	5	38.6	9.6	12	11	142.4	14.1	90	45	2,291	424
Stevens Village	1	0	-	-	9	4	29.8	22.2	12	3	110.3	54.7	6	5	59.6	10.1	2	2	125.0	0.0	30	14	2,199	1,350
Birch Creek	-	-	-	-	4	1	0.0	-	5	3	16.3	10.3	-	-	-	-	-	-	-	-	9	4	82	101
Beaver	4	0	-	-	10	6	0.0	0.0	10	6	42.7	14.5	6	5	23.8	4.2	-	-	-	-	30	17	569	289
Fort Yukon	-	-	-	-	103	20	7.6	4.3	34	6	24.3	19.0	16	13	66.9	7.2	8	6	120.7	29.6	161	45	3,641	1,623
Venetie	1	0	-	-	21	11	3.6	2.5	9	9	14.9	0.0	2	2	0.0	0.0	2	2	35.0	0.0	35	24	280	103
Chalkyitsik	-	-	-	-	21	13	0.0	0.0	6	4	10.0	3.3	2	1	0.0	-	-	-	-	-	29	18	60	39
District 5	<i>6</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>222</i>	<i>77</i>	<i>6.6</i>	<i>2.3</i>	<i>94</i>	<i>38</i>	<i>30.4</i>	<i>9.9</i>	<i>38</i>	<i>31</i>	<i>47.4</i>	<i>3.8</i>	<i>24</i>	<i>21</i>	<i>124.7</i>	<i>12.1</i>	<i>384</i>	<i>167</i>	<i>9,122</i>	<i>2,178</i>
Survey Totals	16	2	38.0	0.0	941	275	6.5	0.9	750	244	19.4	1.8	482	413	29.9	0.7	85	75	70.4	4.5	2,274	1,009	41,048	3,349

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A6.—Estimated summer chum salmon subsistence use in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	Total N	n	Est Total	CI (95%) (+/-)
Hooper Bay	-	-	-	-	74	18	2.1	1.0	71	18	18.2	10.1	44	37	21.7	2.3	4	4	38.8	0.0	193	77	2,556	1,427
Scammon Bay	1	0	-	-	23	6	22.8	19.6	38	9	38.3	14.3	20	16	104.5	7.8	-	-	-	-	82	31	4,072	1,416
Coastal District	<i>1</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>97</i>	<i>24</i>	<i>7.0</i>	<i>4.7</i>	<i>109</i>	<i>27</i>	<i>25.2</i>	<i>8.2</i>	<i>64</i>	<i>53</i>	<i>47.6</i>	<i>2.9</i>	<i>4</i>	<i>4</i>	<i>38.8</i>	<i>0.0</i>	<i>275</i>	<i>108</i>	<i>6,628</i>	<i>2,011</i>
Nunam Iqua	-	-	-	-	5	4	21.3	9.5	6	3	42.3	21.7	20	13	111.2	14.5	1	1	78.0	-	32	21	2,661	630
Alakanuk	1	0	-	-	42	13	23.9	11.1	45	12	67.5	21.9	36	33	59.9	3.6	-	-	-	-	124	58	6,200	2,149
Emmonak	3	0	-	-	68	25	6.0	2.9	40	16	58.9	11.1	47	42	81.1	4.0	3	2	207.5	76.5	161	85	7,200	1,117
Kotlik	-	-	-	-	26	6	0.2	0.1	29	6	12.8	7.7	29	27	64.1	2.8	3	3	13.7	0.0	87	42	2,276	465
District 1	<i>4</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>141</i>	<i>48</i>	<i>10.8</i>	<i>3.6</i>	<i>120</i>	<i>37</i>	<i>50.2</i>	<i>9.2</i>	<i>132</i>	<i>115</i>	<i>76.1</i>	<i>2.9</i>	<i>7</i>	<i>6</i>	<i>105.9</i>	<i>32.8</i>	<i>404</i>	<i>206</i>	<i>18,337</i>	<i>2,545</i>
Mountain Village	-	-	-	-	44	8	59.0	27.3	50	9	34.1	12.7	46	40	98.8	4.0	2	2	251.0	0.0	142	59	9,350	2,691
Pitkas Point	1	1	19.0	0.0	5	3	1.7	1.1	4	4	38.8	0.0	14	12	35.4	5.7	1	0	-	-	25	20	678	156
St. Mary's	-	-	-	-	32	8	21.9	11.2	37	8	44.1	17.1	32	28	87.4	3.7	7	6	181.7	13.1	108	50	6,401	1,456
Pilot Station	-	-	-	-	37	14	18.7	8.7	34	14	28.2	5.9	23	17	64.2	6.4	1	1	265.0	-	95	46	3,393	798
Marshall	-	-	-	-	19	4	0.0	0.0	30	6	19.8	6.5	23	22	45.8	2.1	-	-	-	-	72	32	1,649	397
District 2	<i>1</i>	<i>1</i>	<i>19.0</i>	<i>0.0</i>	<i>137</i>	<i>37</i>	<i>29.2</i>	<i>9.5</i>	<i>155</i>	<i>41</i>	<i>32.6</i>	<i>6.1</i>	<i>138</i>	<i>119</i>	<i>75.1</i>	<i>2.0</i>	<i>11</i>	<i>9</i>	<i>203.9</i>	<i>9.2</i>	<i>442</i>	<i>207</i>	<i>21,471</i>	<i>3,191</i>
Russian Mission	-	-	-	-	20	4	11.3	8.6	27	8	12.5	4.5	14	13	20.4	2.0	-	-	-	-	61	25	848	417
Holy Cross	-	-	-	-	12	4	0.0	0.0	16	9	1.0	0.3	19	15	12.5	1.7	1	1	0.0	-	48	29	254	64
Shageluk	-	-	-	-	5	2	0.0	0.0	11	7	12.7	5.0	7	5	69.8	20.4	6	5	182.6	27.3	29	19	1,724	439
District 3	<i>0</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>37</i>	<i>10</i>	<i>6.1</i>	<i>4.7</i>	<i>54</i>	<i>24</i>	<i>9.1</i>	<i>2.5</i>	<i>40</i>	<i>33</i>	<i>25.3</i>	<i>3.7</i>	<i>7</i>	<i>6</i>	<i>156.5</i>	<i>23.4</i>	<i>138</i>	<i>73</i>	<i>2,826</i>	<i>609</i>
Anvik	-	-	-	-	11	8	0.0	0.0	13	11	3.4	0.8	5	5	4.0	0.0	2	2	85.5	0.0	31	26	235	20
Grayling	-	-	-	-	8	2	0.0	0.0	19	5	0.0	0.0	14	13	20.6	4.1	3	2	170.5	74.8	44	22	800	454
Kaltag	1	0	-	-	11	3	0.0	0.0	39	10	0.3	0.3	5	5	0.2	0.0	1	1	150.0	-	57	19	163	20
Nulato	-	-	-	-	36	7	2.3	1.8	36	8	2.1	1.5	14	12	2.8	0.4	1	1	0.0	-	87	28	198	164
Koyukuk	-	-	-	-	7	5	0.0	0.0	11	10	0.4	0.1	3	3	30.0	0.0	3	3	71.7	0.0	24	21	309	2
Galena	2	1	0.0	0.0	92	18	0.1	0.0	51	13	3.7	2.1	10	8	24.4	8.8	5	5	17.0	0.0	160	45	522	273
Ruby	-	-	-	-	42	7	0.0	0.0	8	3	20.7	16.3	7	7	3.1	0.0	4	4	403.3	0.0	61	21	1,800	256
Huslia	-	-	-	-	46	7	0.9	0.8	17	4	0.0	0.0	7	5	13.4	5.1	4	3	894.3	201.0	74	19	3,711	1,579
Hughes	-	-	-	-	6	4	0.0	0.0	9	7	14.3	6.7	4	3	70.0	21.8	3	2	1138.0	497.7	22	16	3,823	2,934
Allakaket	-	-	-	-	27	6	0.0	0.0	12	4	25.0	20.4	1	1	0.0	-	6	6	338.8	0.0	46	17	2,333	480
Alatna	-	-	-	-	3	2	0.0	0.0	2	2	7.0	0.0	-	-	-	-	-	-	-	-	5	4	14	0
Bettles	1	0	-	-	18	10	0.0	0.0	1	0	-	-	-	-	-	-	-	-	-	-	20	10	0	0
District 4	<i>4</i>	<i>1</i>	<i>0.0</i>	<i>0.0</i>	<i>307</i>	<i>79</i>	<i>0.4</i>	<i>0.2</i>	<i>218</i>	<i>77</i>	<i>4.3</i>	<i>1.4</i>	<i>70</i>	<i>62</i>	<i>15.4</i>	<i>2.0</i>	<i>32</i>	<i>29</i>	<i>367.8</i>	<i>53.5</i>	<i>631</i>	<i>248</i>	<i>13,908</i>	<i>3,421</i>
Tanana	-	-	-	-	54	22	6.6	3.6	18	7	0.0	0.0	6	5	7.6	2.4	12	11	84.2	10.2	90	45	1,414	452
Stevens Village	1	0	-	-	9	4	0.0	0.0	12	3	9.0	7.8	6	5	0.0	0.0	2	2	0.0	0.0	30	14	108	183
Birch Creek	-	-	-	-	4	1	0.0	-	5	3	0.0	0.0	-	-	-	-	-	-	-	-	9	4	0	0
Beaver	4	0	-	-	10	6	0.0	0.0	10	6	0.0	0.0	6	5	0.4	0.2	-	-	-	-	30	17	2	2
Fort Yukon	-	-	-	-	103	20	0.2	0.2	34	6	16.7	15.1	16	13	12.5	5.0	8	6	50.0	25.0	161	45	1,187	1,093
Venetie	1	0	-	-	21	11	0.0	0.0	9	9	1.7	0.0	2	2	0.0	0.0	2	2	0.0	0.0	35	24	15	0
Chalkyitsik	-	-	-	-	21	13	0.0	0.0	6	4	0.0	0.0	2	1	0.0	-	-	-	-	-	29	18	0	0
District 5	<i>6</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>222</i>	<i>77</i>	<i>1.7</i>	<i>0.9</i>	<i>94</i>	<i>38</i>	<i>7.3</i>	<i>5.6</i>	<i>38</i>	<i>31</i>	<i>6.5</i>	<i>2.1</i>	<i>24</i>	<i>21</i>	<i>58.8</i>	<i>9.8</i>	<i>384</i>	<i>167</i>	<i>2,726</i>	<i>1,197</i>
Survey Totals	16	2	6.3	0.0	941	275	7.4	1.6	750	244	21.3	2.4	482	413	53.5	1.1	85	75	204.9	20.9	2,274	1,009	65,896	5,849

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A7.—Estimated fall chum salmon subsistence use in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
																					Total		Est CI (95%)	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	(+/-)
Hooper Bay	-	-	-	-	74	18	0.0	0.0	71	18	0.0	0.0	44	37	6.0	1.9	4	4	0.0	0.0	193	77	264	168
Scammon Bay	1	0	-	-	23	6	0.0	0.0	38	9	0.0	0.0	20	16	2.8	0.7	-	-	-	-	82	31	56	27
Coastal District	<i>1</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>97</i>	<i>24</i>	<i>0.0</i>	<i>0.0</i>	<i>109</i>	<i>27</i>	<i>0.0</i>	<i>0.0</i>	<i>64</i>	<i>53</i>	<i>5.0</i>	<i>1.4</i>	<i>4</i>	<i>4</i>	<i>0.0</i>	<i>0.0</i>	<i>275</i>	<i>108</i>	<i>320</i>	<i>170</i>
Nunam Iqua	-	-	-	-	5	4	0.0	0.0	6	3	0.0	0.0	20	13	2.5	0.8	1	1	0.0	-	32	21	49	31
Alakanuk	1	0	-	-	42	13	0.1	0.1	45	12	16.7	14.3	36	33	3.7	0.5	-	-	-	-	124	58	885	1,259
Emmonak	3	0	-	-	68	25	0.0	0.0	40	16	2.4	1.1	47	42	2.0	0.4	3	2	0.5	0.3	161	85	198	95
Kotlik	-	-	-	-	26	6	0.0	0.0	29	6	0.5	0.4	29	27	2.6	0.5	3	3	1.0	0.0	87	42	92	38
District 1	<i>4</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>141</i>	<i>48</i>	<i>0.0</i>	<i>0.0</i>	<i>120</i>	<i>37</i>	<i>7.2</i>	<i>5.4</i>	<i>132</i>	<i>115</i>	<i>2.7</i>	<i>0.3</i>	<i>7</i>	<i>6</i>	<i>0.6</i>	<i>0.1</i>	<i>404</i>	<i>206</i>	<i>1,224</i>	<i>1,264</i>
Mountain Village	-	-	-	-	44	8	0.0	0.0	50	9	0.0	0.0	46	40	5.1	0.7	2	2	52.5	0.0	142	59	340	64
Pitkas Point	1	1	0.0	0.0	5	3	0.0	0.0	4	4	0.0	0.0	14	12	0.0	0.0	1	0	-	-	25	20	0	0
St. Mary's	-	-	-	-	32	8	0.0	0.0	37	8	0.4	0.2	32	28	1.7	0.3	7	6	5.0	1.9	108	50	104	37
Pilot Station	-	-	-	-	37	14	0.2	0.2	34	14	2.7	2.1	23	17	10.9	3.5	1	1	30.0	-	95	46	382	210
Marshall	-	-	-	-	19	4	0.0	0.0	30	6	0.3	0.3	23	22	11.1	1.1	-	-	-	-	72	32	265	51
District 2	<i>1</i>	<i>1</i>	<i>0.0</i>	<i>0.0</i>	<i>137</i>	<i>37</i>	<i>0.1</i>	<i>0.0</i>	<i>155</i>	<i>41</i>	<i>0.7</i>	<i>0.5</i>	<i>138</i>	<i>119</i>	<i>5.8</i>	<i>0.7</i>	<i>11</i>	<i>9</i>	<i>17.0</i>	<i>1.3</i>	<i>442</i>	<i>207</i>	<i>1,091</i>	<i>228</i>
Russian Mission	-	-	-	-	20	4	0.0	0.0	27	8	3.9	3.3	14	13	4.8	0.9	-	-	-	-	61	25	172	174
Holy Cross	-	-	-	-	12	4	0.0	0.0	16	9	0.0	0.0	19	15	2.9	0.8	1	1	7.0	-	48	29	61	29
Shageluk	-	-	-	-	5	2	0.0	0.0	11	7	0.0	0.0	7	5	0.0	0.0	6	5	8.2	3.1	29	19	49	37
District 3	<i>0</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>37</i>	<i>10</i>	<i>0.0</i>	<i>0.0</i>	<i>54</i>	<i>24</i>	<i>1.9</i>	<i>1.6</i>	<i>40</i>	<i>33</i>	<i>3.1</i>	<i>0.5</i>	<i>7</i>	<i>6</i>	<i>8.0</i>	<i>2.7</i>	<i>138</i>	<i>73</i>	<i>282</i>	<i>180</i>
Anvik	-	-	-	-	11	8	0.0	0.0	13	11	0.0	0.0	5	5	11.6	0.0	2	2	150.0	0.0	31	26	358	0
Grayling	-	-	-	-	8	2	0.0	0.0	19	5	0.0	0.0	14	13	18.3	4.2	3	2	3.5	2.0	44	22	267	117
Kaltag	1	0	-	-	11	3	0.0	0.0	39	10	0.0	0.0	5	5	10.0	0.0	1	1	42.0	-	57	19	92	0
Nulato	-	-	-	-	36	7	14.7	8.6	36	8	13.3	7.4	14	12	17.1	2.4	1	1	0.0	-	87	28	1,246	806
Koyukuk	-	-	-	-	7	5	0.0	0.0	11	10	0.0	0.0	3	3	33.3	0.0	3	3	81.3	0.0	24	21	344	0
Galena	2	1	0.0	0.0	92	18	1.8	1.1	51	13	10.8	4.1	10	8	33.6	8.2	5	5	37.6	0.0	160	45	1,246	482
Ruby	-	-	-	-	42	7	0.0	0.0	8	3	15.3	12.1	7	7	0.0	0.0	4	4	136.5	0.0	61	21	669	190
Huslia	-	-	-	-	46	7	0.4	0.4	17	4	0.0	0.0	7	5	2.6	1.0	4	3	275.3	66.4	74	19	1,139	522
Hughes	-	-	-	-	6	4	0.0	0.0	9	7	0.0	0.0	4	3	16.7	6.0	3	2	10.0	5.8	22	16	97	58
Allakaket	-	-	-	-	27	6	0.0	0.0	12	4	5.0	4.1	1	1	0.0	-	6	6	151.3	0.0	46	17	968	96
Alatna	-	-	-	-	3	2	0.0	0.0	2	2	0.0	0.0	-	-	-	-	-	-	-	-	5	4	0	0
Bettles	1	0	-	-	18	10	0.0	0.0	1	0	-	-	-	-	-	-	-	-	-	-	20	10	0	0
District 4	<i>4</i>	<i>1</i>	<i>0.0</i>	<i>0.0</i>	<i>307</i>	<i>79</i>	<i>2.3</i>	<i>1.1</i>	<i>218</i>	<i>77</i>	<i>5.6</i>	<i>1.6</i>	<i>70</i>	<i>62</i>	<i>16.1</i>	<i>1.6</i>	<i>32</i>	<i>29</i>	<i>105.3</i>	<i>8.3</i>	<i>631</i>	<i>248</i>	<i>6,426</i>	<i>1,104</i>
Tanana	-	-	-	-	54	22	99.2	52.9	18	7	0.0	0.0	6	5	3.8	1.6	12	11	1462.9	137.3	90	45	22,934	6,463
Stevens Village	1	0	-	-	9	4	0.0	0.0	12	3	0.0	0.0	6	5	0.0	0.0	2	2	540.0	0.0	30	14	1,080	0
Birch Creek	-	-	-	-	4	1	0.0	-	5	3	0.0	0.0	-	-	-	-	-	-	-	-	9	4	0	0
Beaver	4	0	-	-	10	6	0.0	0.0	10	6	0.0	0.0	6	5	8.0	3.3	-	-	-	-	30	17	48	38
Fort Yukon	-	-	-	-	103	20	3.0	2.7	34	6	0.0	0.0	16	13	207.2	37.5	8	6	409.8	95.9	161	45	6,902	1,985
Venetie	1	0	-	-	21	11	11.8	6.4	9	9	62.8	0.0	2	2	10.0	0.0	2	2	560.0	0.0	35	24	1,953	262
Chalkyitsik	-	-	-	-	21	13	19.2	11.9	6	4	12.5	7.2	2	1	0.0	-	-	-	-	-	29	18	479	496
District 5	<i>6</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>222</i>	<i>77</i>	<i>28.5</i>	<i>13.0</i>	<i>94</i>	<i>38</i>	<i>6.8</i>	<i>0.5</i>	<i>38</i>	<i>31</i>	<i>89.6</i>	<i>15.8</i>	<i>24</i>	<i>21</i>	<i>959.7</i>	<i>75.7</i>	<i>384</i>	<i>167</i>	<i>33,396</i>	<i>6,784</i>
Survey Totals	16	2	0.0	0.0	941	275	7.5	3.1	750	244	3.9	1.0	482	413	12.7	1.3	85	75	317.1	21.9	2,274	1,009	42,739	6,996

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A8.—Estimated coho salmon subsistence use in surveyed villages, by harvest level, with village and district totals, Yukon Area, 2004.

Community	Unknown				Does Not Harvest Salmon				Light Harvester				Medium Harvester				Heavy Harvester				Combined			
																					Total	Est	CI (95%)	
	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Mean	SE	N	n	Total	(+/-)
Hooper Bay	-	-	-	-	74	18	0.1	0.1	71	18	0.0	0.0	44	37	0.0	0.0	4	4	0.0	0.0	193	77	9	14
Scammon Bay	1	0	-	-	23	6	0.0	0.0	38	9	0.0	0.0	20	16	2.7	0.6	-	-	-	-	82	31	54	25
Coastal District	<i>1</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>97</i>	<i>24</i>	<i>0.1</i>	<i>0.1</i>	<i>109</i>	<i>27</i>	<i>0.0</i>	<i>0.0</i>	<i>64</i>	<i>53</i>	<i>0.9</i>	<i>0.2</i>	<i>4</i>	<i>4</i>	<i>0.0</i>	<i>0.0</i>	<i>275</i>	<i>108</i>	<i>63</i>	<i>29</i>
Nunam Iqua	-	-	-	-	5	4	0.0	0.0	6	3	0.7	0.5	20	13	3.8	1.1	1	1	0.0	-	32	21	79	43
Alakanuk	1	0	-	-	42	13	0.0	0.0	45	12	2.1	1.4	36	33	3.2	0.4	-	-	-	-	124	58	207	131
Emmonak	3	0	-	-	68	25	0.2	0.2	40	16	1.9	1.0	47	42	2.0	0.3	3	2	0.5	0.3	161	85	184	86
Kotlik	-	-	-	-	26	6	2.3	2.0	29	6	0.3	0.3	29	27	13.9	2.0	3	3	0.0	0.0	87	42	474	156
District 1	<i>4</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>141</i>	<i>48</i>	<i>0.5</i>	<i>0.4</i>	<i>120</i>	<i>37</i>	<i>1.5</i>	<i>0.6</i>	<i>132</i>	<i>115</i>	<i>5.2</i>	<i>0.5</i>	<i>7</i>	<i>6</i>	<i>0.2</i>	<i>0.1</i>	<i>404</i>	<i>206</i>	<i>944</i>	<i>225</i>
Mountain Village	-	-	-	-	44	8	0.0	0.0	50	9	0.0	0.0	46	40	1.8	0.4	2	2	35.5	0.0	142	59	155	32
Pitkas Point	1	1	0.0	0.0	5	3	0.0	0.0	4	4	0.0	0.0	14	12	0.0	0.0	1	0	-	-	25	20	0	0
St. Mary's	-	-	-	-	32	8	0.0	0.0	37	8	3.6	2.3	32	28	1.3	0.3	7	6	5.0	1.9	108	50	210	169
Pilot Station	-	-	-	-	37	14	0.0	0.0	34	14	0.3	0.2	23	17	2.2	0.9	1	1	0.0	-	95	46	60	43
Marshall	-	-	-	-	19	4	0.0	0.0	30	6	0.5	0.3	23	22	17.7	2.9	-	-	-	-	72	32	423	130
District 2	<i>1</i>	<i>1</i>	<i>0.0</i>	<i>0.0</i>	<i>137</i>	<i>37</i>	<i>0.0</i>	<i>0.0</i>	<i>155</i>	<i>41</i>	<i>1.0</i>	<i>0.6</i>	<i>138</i>	<i>119</i>	<i>4.2</i>	<i>0.5</i>	<i>11</i>	<i>9</i>	<i>10.6</i>	<i>1.3</i>	<i>442</i>	<i>207</i>	<i>848</i>	<i>220</i>
Russian Mission	-	-	-	-	20	4	0.0	0.0	27	8	3.4	2.8	14	13	4.3	0.8	-	-	-	-	61	25	151	151
Holy Cross	-	-	-	-	12	4	0.0	0.0	16	9	0.6	0.4	19	15	0.9	0.4	1	1	0.0	-	48	29	27	20
Shageluk	-	-	-	-	5	2	0.0	0.0	11	7	7.4	4.5	7	5	0.0	0.0	6	5	3.2	0.8	29	19	101	97
District 3	<i>0</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>37</i>	<i>10</i>	<i>0.0</i>	<i>0.0</i>	<i>54</i>	<i>24</i>	<i>3.4</i>	<i>1.7</i>	<i>40</i>	<i>33</i>	<i>2.0</i>	<i>0.3</i>	<i>7</i>	<i>6</i>	<i>2.7</i>	<i>0.7</i>	<i>138</i>	<i>73</i>	<i>279</i>	<i>181</i>
Anvik	-	-	-	-	11	8	0.0	0.0	13	11	0.5	0.2	5	5	15.0	0.0	2	2	53.0	0.0	31	26	187	5
Grayling	-	-	-	-	8	2	2.5	2.2	19	5	0.0	0.0	14	13	9.8	1.2	3	2	25.0	8.7	44	22	233	69
Kaltag	1	0	-	-	11	3	0.0	0.0	39	10	0.0	0.0	5	5	0.0	0.0	1	1	10.0	-	57	19	10	0
Nulato	-	-	-	-	36	7	0.0	0.0	36	8	5.1	2.2	14	12	1.3	0.5	1	1	0.0	-	87	28	203	157
Koyukuk	-	-	-	-	7	5	0.0	0.0	11	10	0.1	0.0	3	3	20.0	0.0	3	3	35.0	0.0	24	21	166	1
Galena	2	1	0.0	0.0	92	18	0.3	0.2	51	13	9.2	5.4	10	8	3.6	0.8	5	5	29.8	0.0	160	45	678	542
Ruby	-	-	-	-	42	7	0.0	0.0	8	3	38.7	30.6	7	7	0.9	0.0	4	4	205.3	0.0	61	21	1,136	479
Huslia	-	-	-	-	46	7	0.0	0.0	17	4	0.0	0.0	7	5	0.2	0.1	4	3	190.7	53.7	74	19	764	421
Hughes	-	-	-	-	6	4	0.0	0.0	9	7	1.4	0.7	4	3	16.7	4.4	3	2	10.0	5.8	22	16	110	50
Allakaket	-	-	-	-	27	6	0.0	0.0	12	4	0.0	0.0	1	1	0.0	-	6	6	2.8	0.0	46	17	17	0
Alatna	-	-	-	-	3	2	0.0	0.0	2	2	0.0	0.0	-	-	-	-	-	-	-	-	5	4	0	0
Bettles	1	0	-	-	18	10	0.0	0.0	1	0	-	-	-	-	-	-	-	-	-	-	20	10	0	0
District 4	<i>4</i>	<i>1</i>	<i>0.0</i>	<i>0.0</i>	<i>307</i>	<i>79</i>	<i>0.1</i>	<i>0.1</i>	<i>218</i>	<i>77</i>	<i>4.5</i>	<i>1.7</i>	<i>70</i>	<i>62</i>	<i>5.7</i>	<i>0.4</i>	<i>32</i>	<i>29</i>	<i>64.9</i>	<i>6.8</i>	<i>631</i>	<i>248</i>	<i>3,504</i>	<i>856</i>
Tanana	-	-	-	-	54	22	11.3	7.1	18	7	0.0	0.0	6	5	2.4	1.0	12	11	35.1	6.9	90	45	1,047	771
Stevens Village	1	0	-	-	9	4	0.0	0.0	12	3	0.0	0.0	6	5	0.0	0.0	2	2	50.0	0.0	30	14	100	0
Birch Creek	-	-	-	-	4	1	0.0	-	5	3	0.0	0.0	-	-	-	-	-	-	-	-	9	4	0	0
Beaver	4	0	-	-	10	6	0.0	0.0	10	6	0.0	0.0	6	5	0.0	0.0	-	-	-	-	30	17	0	0
Fort Yukon	-	-	-	-	103	20	0.0	0.0	34	6	0.0	0.0	16	13	0.4	0.2	8	6	1.7	0.8	161	45	19	14
Venetie	1	0	-	-	21	11	0.0	0.0	9	9	0.6	0.0	2	2	0.0	0.0	2	2	0.0	0.0	35	24	5	0
Chalkyitsik	-	-	-	-	21	13	0.0	0.0	6	4	7.5	4.3	2	1	0.0	-	-	-	-	-	29	18	45	51
District 5	<i>6</i>	<i>0</i>	<i>0.0</i>	<i>0.0</i>	<i>222</i>	<i>77</i>	<i>2.8</i>	<i>1.7</i>	<i>94</i>	<i>38</i>	<i>0.5</i>	<i>0.3</i>	<i>38</i>	<i>31</i>	<i>0.5</i>	<i>0.2</i>	<i>24</i>	<i>21</i>	<i>22.3</i>	<i>3.4</i>	<i>384</i>	<i>167</i>	<i>1,216</i>	<i>773</i>
Survey Totals	16	2	0.0	0.0	941	275	0.8	0.4	750	244	2.1	0.5	482	413	3.8	0.2	85	75	32.6	2.8	2,274	1,009	6,854	1,210

Note: The total number of households (N), the number of households contacted (n), standard error (SE), and includes 95% confidence interval, CI (95%).

Appendix A9.—Estimated number of salmon given away by subsistence fishers to other subsistence households and corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2004.

Community			Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
	Total	Households	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated
	Households	Contacted ^a	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total
Hooper Bay	193	76	140	62	571	269	0	0	51	53	762
Scammon Bay	82	33	259	124	1,168	1,026	0	0	0	0	1,427
Coastal District	275	109	399	138	1,739	1,061	0	0	51	53	2,189
Nunam Iqua	32	22	1	1	101	78	1	2	7	8	110
Alakanuk	124	59	73	43	618	480	9	11	0	0	700
Emmonak	161	86	47	48	663	650	14	21	24	38	748
Kotlik	87	40	122	161	342	328	5	9	47	82	516
District 1	404	207	243	174	1,724	875	29	25	78	91	2,074
Mountain Village	142	59	226	86	775	477	0	0	11	20	1,012
Pitkas Point	25	21	107	58	63	26	67	2	0	0	237
St. Mary's	108	50	154	115	357	207	0	0	17	12	528
Pilot Station	95	46	50	35	456	260	0	0	0	0	506
Marshall	72	32	303	423	224	180	37	15	2	1	566
District 2	442	208	840	452	1,875	609	104	15	30	23	2,849
Russian Mission	61	25	82	46	110	101	0	0	25	33	217
Holy Cross	48	28	57	59	6	10	12	12	9	12	84
Shageluk	29	18	43	23	241	254	5	4	41	45	330
District 3	138	71	182	78	357	273	17	13	75	57	631
Anvik	31	29	59	16	18	12	29	13	103	1	209
Grayling	44	20	80	49	21	11	13	9	7	4	121
Kaltag	57	19	160	169	0	0	101	118	0	0	261
Nulato	87	26	119	148	0	0	28	29	0	0	147
Koyukuk	24	20	27	12	32	26	0	0	7	7	66
Galena	160	44	383	253	0	0	130	155	164	111	677
Ruby	61	24	101	59	0	0	1,315	2,156	300	0	1,716
Huslia	74	19	350	261	0	0	149	261	0	0	499
Hughes	22	15	40	20	0	0	0	0	0	0	40
Allakaket	46	18	15	24	46	64	0	0	0	0	61
Alatna	5	4	9	7	0	0	0	0	0	0	9
Bettles	20	10	7	6	0	0	0	0	0	0	7
District 4	631	248	1,350	435	117	71	1,765	2,180	581	112	3,813
Tanana	90	45	426	203	169	178	280	348	20	20	895
Stevens Village	30	13	112	116	0	0	0	0	14	20	126
Birch Creek	9	3	10	0	0	0	0	0	5	8	15
Beaver	30	17	157	58	0	0	0	0	0	0	157
Fort Yukon	161	43	1,102	541	0	0	524	345	0	0	1,626
Venetie	35	26	43	18	8	0	165	0	1	0	217
Chalkyitsik	29	19	80	38	0	0	0	0	2	2	82
District 5	384	166	1,930	594	177	178	969	490	42	29	3,118
Survey Totals	2,274	1,009	4,944	895	5,989	1,540	2,884	2,235	857	168	14,674

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Appendix A10.—Estimated number of salmon given away by commercial fishers to another subsistence household and corresponding confidence intervals (CI) for surveyed villages, Yukon Area, 2004.

Community			Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Total Salmon
	Total	Households	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated	CI (95%)	Estimated
	Households	Contacted ^a	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total	(+/-)	Total
Hooper Bay	193	76	0	0	0	0	0	0	374	94	374
Scammon Bay	82	33	0	0	0	0	0	0	0	0	0
Coastal District	275	109	0	0	0	0	0	0	374	94	374
Nunam Iqua	32	22	0	0	0	0	0	0	0	0	0
Alakanuk	124	59	0	0	0	0	0	0	0	0	0
Emmonak	161	86	0	0	85	86	0	0	0	0	85
Kotlik	87	40	0	0	73	127	0	0	0	0	73
District 1	404	207	0	0	158	153	0	0	0	0	158
Mountain Village	142	59	0	0	240	333	0	0	0	0	240
Pitkas Point	25	21	0	0	0	0	0	0	0	0	0
St. Mary's	108	50	0	0	0	0	0	0	0	0	0
Pilot Station	95	46	0	0	41	41	0	0	0	0	41
Marshall	72	32	0	0	0	0	0	0	0	0	0
District 2	442	208	0	0	281	336	0	0	0	0	281
Russian Mission	61	25	0	0	0	0	0	0	0	0	0
Holy Cross	48	28	0	0	0	0	0	0	0	0	0
Shageluk	29	19	0	0	0	0	0	0	0	0	0
District 3	138	72	0	0	0	0	0	0	0	0	0
Anvik	31	29	0	0	0	0	0	0	0	0	0
Grayling	44	20	0	0	0	0	0	0	0	0	0
Kaltag	57	19	0	0	0	0	0	0	0	0	0
Nulato	87	26	0	0	0	0	0	0	0	0	0
Koyukuk	24	20	0	0	0	0	0	0	0	0	0
Galena	160	44	0	0	0	0	0	0	0	0	0
Ruby	61	24	0	0	0	0	0	0	0	0	0
Huslia	74	19	0	0	0	0	0	0	0	0	0
Hughes	22	15	0	0	0	0	0	0	0	0	0
Allakaket	46	18	0	0	0	0	0	0	0	0	0
Alatna	5	4	0	0	0	0	0	0	0	0	0
Bettles	20	10	0	0	0	0	0	0	0	0	0
District 4	631	248	0	0	0	0	0	0	0	0	0
Tanana	90	45	0	0	0	0	0	0	0	0	0
Stevens Village	30	13	0	0	0	0	0	0	0	0	0
Birch Creek	9	3	0	0	0	0	0	0	0	0	0
Beaver	30	17	0	0	0	0	0	0	0	0	0
Fort Yukon	161	43	0	0	0	0	0	0	0	0	0
Venetie	35	26	0	0	0	0	0	0	0	0	0
Chalkyitsik	29	19	0	0	0	0	0	0	0	0	0
District 5	384	166	0	0	0	0	0	0	0	0	0
Survey Totals	2,274	1,010	0	0	439	369	0	0	374	94	813

^a The number of households contacted per species may vary. The number of households indicated is the greatest number of households contacted for a given species.

Appendix A11.—Estimated total number of salmon provided to villages for subsistence use by test fish programs, Yukon Area, 2004.

Yukon River Test Fishery Sites	Village where fish were distributed	Chinook Salmon	Summer Chum Salmon	Fall Chum Salmon	Coho Salmon	Total Salmon
Lower Yukon Test Fish Drift Gillnet (LYTF) ^a	Emmonak	1,043	693	510	95	2,341
	Kotlik	90	75	125	57	347
	Alakanuk	25	100	0	0	125
LYTF Project Subtotal:		1,158	868	635	152	2,813
Mountain Village Test Fish Drift Gillnet	Mountain Village	-	-	425	285	710
Pilot Station Test Fish Drift Gillnet	Pilot Station	665	1,848	726	236	3,475
Kaltag Test Fish Drift Gillnet	Kaltag	-	-	592	128	720
Reported Test Fish Catch Total ^b		1,823	2,716	2,378	801	7,718

^a A drift test fishery operates both summer and fall seasons, however numbers may includes some fish from the summer season set gillnet test fishery.

^b Test fish catch totals as reported in Table 1.

Appendix A12.—Salmon reported lost in surveyed communities due to sick fish, weather, predators, and unknown causes, Yukon Area, 2004.

Reasons Given For Salmon Lost	Salmon Lost										Total Reported Salmon Lost		
	Chinook Salmon		Summer Chum Salmon		Fall Chum Salmon		Coho Salmon		Pink Salmon				
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
LOST TO SICK FISH													
Ichthyophonus h.	157	23.7%	25	1.9%	0	0.0%	0	0.0%	0	0.0%	182	7.9%	
Other fish with blemishes and sores	26	3.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	26	1.1%	
Subtotal	183	27.6%	25	1.9%	0	0.0%	0	0.0%	0	0.0%	208	9.1%	
LOST TO WEATHER / SPOILAGE													
Rain/Sun Spoilage/Bad Weather	96	14.5%	508	38.3%	37	17.0%	17	50.0%	10	18.2%	668	29.1%	
Smokehouse fire	50	7.5%	0	0.0%	9	4.1%	0	0.0%	0	0.0%	59	2.6%	
Flies	0	0.0%	70	5.3%	50	22.9%	0	0.0%	0	0.0%	120	5.2%	
Subtotal	146	22.0%	578	43.5%	96	44.0%	17	50.0%	10	18.2%	847	36.9%	
LOST TO ANIMALS													
Bears	13	2.0%	261	19.7%	52	23.9%	10	29.4%	5	9.1%	341	14.8%	
Birds	22	3.3%	23	1.7%	10	4.6%	0	0.0%	0	0.0%	55	2.4%	
Subtotal	35	5.3%	284	21.4%	62	28.4%	10	29.4%	5	9.1%	396	17.2%	
LOST UNKNOWN	Subtotal	299	45.1%	441	33.2%	60	27.5%	7	20.6%	40	72.7%	847	36.9%
Total Salmon Lost ^a	663	28.9%	1,328	57.8%	218	9.5%	34	1.5%	55	2.4%	2,298	100%	
Salmon Fed to Dogs ^b	192	8.4%	326	14.2%	27	1.2%	7	0.3%	10	0.4%	562	24.5%	
Salmon Lost to Humans and Dogs ^c	471	20.5%	1,002	43.6%	191	8.3%	27	1.2%	45	2.0%	1,736	75.5%	

^a A total of 108 surveyed households reported losing salmon.

^b Salmon unfit for human consumption, but retained for dog food.

^c Salmon lost and unfit for human consumption and for dog food.

APPENDIX B. HISTORICAL HARVEST INFORMATION

Appendix B1.—Chinook salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1994–2004.

Community	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1994-1998 Average	1999-2003 Average
Hooper Bay	157	1,500	1,127	613	13	173	114	2,150	282	722	1,042	682	688
Scammon Bay	668	585	1,238	526	378	938	449	732	840	1,128	996	679	817
Coastal District Total	825	2,085	2,365	1,139	391	1,111	563	2,882	1,122	1,850	2,038	1,361	1,506
Nunam Iqua	606	459	450	970	527	855	684	550	393	925	647	602	681
Alakanuk	1,045	1,191	662	2,058	1,930	1,236	1,109	973	1,773	1,707	1,317	1,377	1,360
Emmonak	2,384	1,711	702	3,080	2,396	3,337	2,205	2,473	1,751	2,763	2,768	2,055	2,506
Kotlik	2,505	2,599	1,832	1,442	2,389	1,420	1,893	3,093	1,686	937	1,148	2,153	1,806
District 1 Subtotal	6,540	5,960	3,646	7,550	7,242	6,848	5,891	7,089	5,603	6,332	5,880	6,188	6,353
Mountain Village	1,511	1,542	1,315	2,081	2,533	2,162	1,715	1,864	1,523	2,174	2,362	1,796	1,888
Pitkas Point	469	559	762	793	817	632	753	651	566	633	609	680	647
St. Marys	2,722	2,031	1,766	2,592	2,679	2,150	1,810	3,815	2,045	1,916	2,357	2,358	2,347
Pilot Station	1,977	1,614	1,811	2,373	1,715	2,715	2,378	2,614	2,530	2,886	2,406	1,898	2,625
Marshall	2,277	3,291	2,126	1,511	1,711	2,780	3,279	4,498	2,290	2,059	1,990	2,183	2,981
District 2 Subtotal	8,956	9,037	7,780	9,350	9,455	10,439	9,935	13,442	8,954	9,668	9,724	8,916	10,488
Russian Mission	1,793	2,450	2,709	1,459	1,314	2,722	1,860	3,428	1,887	2,057	2,337	1,945	2,391
Holy Cross	4,040	2,808	3,953	3,472	2,648	4,581	1,249	2,711	1,813	2,395	1,993	3,384	2,550
Shageluk	291	161	121	1,380	552	412	805	222	439	550	418	501	486
District 3 Subtotal	6,124	5,419	6,783	6,311	4,514	7,715	3,914	6,361	4,139	5,002	4,748	5,830	5,426
Lower Yukon River Total	21,620	20,416	18,209	23,211	21,211	25,002	19,740	26,892	18,696	21,002	20,352	20,933	22,266
Anvik	424	450	768	951	1,025	776	205	608	708	1,286	1,588	724	717
Grayling	1,843	1,340	1,036	2,391	2,177	2,476	839	1,077	2,249	1,613	1,869	1,757	1,651
Kaltag	1,653	1,890	994	1,036	1,870	2,051	1,074	1,506	1,435	1,838	1,656	1,489	1,581
Nulato	1,735	1,533	1,461	1,576	4,147	1,799	1,083	2,127	1,773	2,531	5,199	2,090	1,863
Koyukuk	589	146	402	851	800	506	175	449	323	860	400	558	463
Galena	1,834	1,336	2,770	2,350	1,668	2,539	788	1,755	1,522	3,112	3,296	1,992	1,943
Ruby/Kokrines	1,539	1,435	557	2,260	3,891	777	1,577	2,033	954	631	1,620	1,936	1,194
District 4 Subtotal (Excluding Koyukuk River)	9,617	8,130	7,988	11,415	15,578	10,924	5,741	9,555	8,964	11,871	15,628	10,546	9,411
Huslia	239	932	67	57	23	90	424	377	222	469	285	264	316
Hughes	107 ^a	77	54	34	91	105	50	144	67	113	291	73	96
Allakaket	338 ^a	321	82	423	85	108	41	76	200	306	65	250	146
Alatna	26 ^a	10	2	38	4	10	8	0	3	12	0	16	7
Bettles	0	4	0	39	20	1	0	0	0	0	0	13	0
Koyukuk River Subtotal	710	1,344	205	591	223	314	523	597	492	900	641	615	565
District 4 Total	10,327	9,474	8,193	12,006	15,801	11,238	6,264	10,152	9,456	12,771	16,269	11,160	9,976

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Appendix B1.—Page 2 of 2.

Community	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1994-1998 Average	1999-2003 Average
Tanana	2,999	2,398	2,741	3,596	5,212	3,388	2,895	4,112	2,379	5,332	2,689	3,389	3,621
Rampart ^b	1,354	1,461	1,751	2,203	885	2,018	847	1,857	852	1,411	287	1,531	1,397
Fairbanks ^c	1,920	1,447	1,166	955	1,231	851	1,342	1,125	1,767	1,932	1,997	1,344	1,403
Stevens Village	2,814	2,674	681	2,070	1,232	1,214	466	1,111	1,334	1,121	2,394	1,894	1,049
Birch Creek	119	93	0	373	48	24	72	0	67	78	82	127	48
Beaver	850	1,021	886	1,859	470	473	196	1,368	702	1,156	858	1,017	779
Fort Yukon	4,727	3,132	4,957	3,145	1,771	2,539	988	2,361	2,348	4,004	4,430	3,546	2,448
Circle	1,377	1,145	1,781	1,091	685	524	627	447	1,533	895	565	1,216	805
Central	240	171	131	146	170	91	26	84	58	144	83	172	81
Eagle	1,234	1,886	1,092	1,534	2,473	2,558	1,087	1,033	1,910	2,081	1,512	1,644	1,734
Other ^d	602	1,004	377	763	446	488	205	40	348	862	357	638	389
District 5 Subtotal (Excluding Chandalar and Black Rivers)	18,236	16,432	15,563	17,735	14,623	14,168	8,751	13,538	13,298	19,016	15,254	16,518	13,754
Venetie	524	434	134	314	168	127	103	28	77	125	352	315	92
Chalkyitsik	0	0	30	0	11	35	0	0	26	50	60	8	22
Chandalar and Black Rivers Subtotal	524	434	164	314	179	162	103	28	103	175	412	323	114
District 5 Total	18,760	16,866	15,727	18,049	14,802	14,330	8,854	13,566	13,401	19,191	15,666	16,841	13,868
Manley	480	335	134	242	209	136	58	534	336	213	239	280	255
Minto	316	535	523	1,208	275	317	0	197	19	317	35	571	170
Nenana	759	607	423	1,082	1,187	975	541	1,405	509	1,193	633	812	925
Fairbanks ^e	775	285	97	176	230	195	360	313	159	392	449	313	284
Other ^f	40	17	0	4	18	1	24	0	44	30	32	16	20
District 6 Tanana R. Total	2,370	1,779	1,177	2,712	1,919	1,624	983	2,449	1,067	2,145	1,388	1,991	1,654
Upper Yukon River Total	31,457	28,119	25,097	32,767	32,522	27,192	16,101	26,167	23,924	34,107	33,323	29,992	25,498
Alaska, Yukon River Total ^g	53,077	48,535	43,306	55,978	53,733	52,194	35,841	53,059	42,620	55,109	53,675	50,926	47,765
Alaska, Yukon Area Total	53,902	50,620	45,671	57,117	54,124	53,305	36,404	55,941	43,742	56,959	55,713	52,287	49,270

^a Due to floods in 1994, Hughes, Allakaket, and Alatna were not surveyed. The 1994 Chinook salmon harvest is estimated based on a 5-year-average, 1989-1993.

^b Rampart area harvest as reported from subsistence fishing permits established by the Alaska Board of Fisheries (BOF) in 2004.

^c Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^d Other permit holders who fished in District 5 but did not reside in the communities listed.

^e Harvests by Fairbanks subsistence permit holders who fished in the Tanana River.

^f Other permit holders who fished in District 6 but did not reside in the communities listed.

^g Does not include the Coastal District.

Appendix B2.—Summer chum salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1994–2004.

Community	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1994-1998 Average	1999-2003 Average
Hooper Bay	10,556	13,374	15,870	12,310	261	10,146	9,301	12,593	9,780	10,658	3,242	10,474	10,496
Scammon Bay	4,347	3,986	6,365	3,401	1,101	3,315	3,876	1,323	5,016	3,310	5,020	3,840	3,368
Coastal District Total	14,903	17,360	22,235	15,711	1,362	13,461	13,177	13,916	14,796	13,968	8,262	14,314	13,864
Nunam Iqua	1,941	2,979	2,634	2,603	1,872	1,343	3,309	1,942	1,897	2,561	2,698	2,406	2,210
Alakanuk	5,947	10,538	6,171	7,443	5,643	3,808	6,259	5,992	7,637	5,287	6,555	7,148	5,797
Emmonak	13,060	11,696	6,097	12,399	9,558	10,310	8,338	8,242	8,458	7,644	8,618	10,562	8,598
Kotlik	11,197	9,777	12,387	4,803	9,815	4,708	6,173	6,595	6,115	4,209	2,749	9,596	5,560
District 1 Subtotal	32,145	34,990	27,289	27,248	26,888	20,169	24,079	22,771	24,107	19,701	20,620	29,712	22,165
Mountain Village	3,938	10,554	9,285	11,310	9,596	10,059	7,074	8,484	6,657	6,497	10,676	8,937	7,754
Pitkas Point	1,103	1,665	1,619	747	1,302	849	1,728	862	639	800	717	1,287	976
St. Marys	10,128	5,950	6,736	8,874	9,047	6,752	8,094	10,026	7,284	4,521	6,994	8,147	7,335
Pilot Station	5,450	4,427	6,355	4,532	5,042	5,265	5,223	5,329	6,490	4,163	5,779	5,161	5,294
Marshall	2,288	4,594	4,431	1,508	1,293	1,212	3,212	1,602	2,484	792	1,765	2,823	1,860
District 2 Subtotal	22,907	27,190	28,426	26,971	26,280	24,137	25,331	26,303	23,554	16,773	25,931	26,355	23,220
Russian Mission	801	3,653	3,554	585	702	616	1,318	165	395	171	884	1,859	533
Holy Cross	1,479	948	1,700	487	269	264	569	460	155	214	276	977	332
Shageluk	6,212	7,542	6,114	9,244	5,501	4,868	1,800	684	1,956	5,473	1,798	6,923	2,956
District 3 Subtotal	8,492	12,143	11,368	10,316	6,472	5,748	3,687	1,309	2,506	5,858	2,958	9,758	3,822
Lower Yukon River Total	63,544	74,323	67,083	64,535	59,640	50,054	53,097	50,383	50,167	42,332	49,509	65,825	49,207
Anvik	907	9	185	6,306	2,139	848	425	94	1,089	844	248	1,909	660
Grayling	1,418	3,385	587	2,446	4,032	4,126	474	92	1,311	1,072	1,129	2,374	1,415
Kaltag	3,683	139	31	73	175	625	169	10	234	1,028	213	820	413
Nulato	975	228	1,003	115	3,518	1,945	377	208	269	180	198	1,168	596
Koyukuk	2,039	315	41	739	1,819	197	204	118	426	1,339	329	991	457
Galena	1,198	1,954	3,902	4,575	2,333	1,688	820	53	712	289	782	2,792	712
Ruby/Kokrines	4,586	4,445	2,016	3,286	2,251	1,697	1,233	1,025	1,406	876	2,010	3,317	1,247
District 4 Subtotal (Excluding Koyukuk River)	14,806	10,475	7,765	17,540	16,267	11,126	3,702	1,600	5,447	5,628	4,909	13,371	5,501
Huslia	6,014	4,885	2,372	840	449	1,192	745	833	3,178	6,187	3,844	2,912	2,427
Hughes	1,581 ^a	2,448	1,411	1,579	334	577	1,079	551	1,089	1,265	3,823	1,471	912
Allakaket	4,693 ^a	6,396	4,668	3,916	901	2,245	1,520	1,604	6,242	4,383	2,367	4,115	3,199
Alatna	365 ^a	140	209	145	13	99	0	0	15	50	16	174	33
Bettles	45	740	0	210	82	100	0	0	0	0	0	215	20
Koyukuk River Subtotal	12,698	14,609	8,660	6,690	1,779	4,213	3,344	2,988	10,524	11,885	10,050	8,887	6,591
District 4 Total	27,504	25,084	16,425	24,230	18,046	15,339	7,046	4,588	15,971	17,513	14,959	22,258	12,091

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Community	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1994-1998 Average	1999-2003 Average
Tanana	7,022	3,660	5,190	2,526	1,966	1,214	2,848	1,407	3,321	3,075	1,490	4,073	2,373
Rampart ^b	559	1,168	1,188	738	19	60	47	0	14	9	103	734	26
Fairbanks ^c	360	722	2,958	424	57	346	275	165	295	89	280	904	234
Stevens Village	459	158	530	191	171	26	50	0	12	0	108	302	18
Beaver	655	36	572	2	15	91	7	328	77	7	2	256	102
Fort Yukon ^d	2,043	998	26	134	30	0	0	289	1,832	2,176	1,187	646	859
Circle	98	70	271	257	1	60	109	6	5	85	52	139	53
Central	8	2	53	25	1	0	1	0	0	0	0	18	0
Eagle	38	57	105	17	52	271	121	555	24	104	171	54	215
Other ^e	21	232	616	130	2	42	51	0	17	0	3	200	22
District 5 Subtotal (Excluding Chandalar and Black Rivers)	11,263	7,103	11,509	4,444	2,314	2,110	3,509	2,750	5,597	5,545	3,396	7,327	3,902
Venetie	567	552	0	76	0	166	0	106	13	0	15	239	57
Chalkyitsik	0	0	0	0	0	0	132	0	0	0	0	0	26
Chandalar and Black Rivers Subtotal	567	552	0	76	0	166	132	106	13	0	15	239	83
District 5 Total	11,830	7,655	11,509	4,520	2,314	2,276	3,641	2,856	5,610	5,545	3,411	7,566	3,986
Manley	1,405	1,657	1,219	576	211	272	240	338	93	65	296	1,014	202
Minto	509	1,320	1,421	1,056	148	173	3	19	10	625	7	891	166
Nenana	1,352	5,043	4,411	1,899	5,041	1,894	775	19	360	2,193	1,171	3,549	1,048
Fairbanks ^f	3,693	3,528	392	271	604	315	90	182	47	31	308	1,698	133
Other ^g	67	113	43	22	0	0	3	0	2	0	11	49	1
District 6 Tanana River Total	7,026	11,661	7,486	3,824	6,004	2,654	1,111	558	512	2,914	1,793	7,200	1,550
Upper Yukon River Total	46,360	44,400	35,420	32,574	26,364	20,269	11,798	8,002	22,093	25,972	20,163	37,024	17,627
Alaska, Yukon River Total ^h	109,904	118,723	102,503	97,109	86,004	70,323	64,895	58,385	72,260	68,304	69,672	106,603	70,373
Alaska, Yukon Area Total	124,807	136,083	124,738	112,820	87,366	83,784	78,072	72,301	87,056	82,272	77,934	117,163	80,697

^a Due to floods in 1994, Hughes, Allakaket, and Alatna were not surveyed. The 1994 summer chum salmon harvest is estimated based on a 5-year-average, 1989-1993.

^b Rampart area harvest as reported from subsistence fishing permits established by the Alaska Board of Fisheries (BOF) in 2004.

^c Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^d Includes Birch Creek harvest of 1 summer chum salmon in 1997.

^e Other permit holders who fished in District 5 but did not reside in the communities listed.

^f Harvests by Fairbanks subsistence permit holders who fished in the Tanana River.

^g Other permit holders who fished in District 6 but did not reside in the communities listed.

^h Does not include the Coastal District.

Appendix B3.—Fall chum salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1994–2004.

Community	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1994-1998 Average	1999-2003 Average
Hooper Bay	284	207	392	0	0	0	78	364	44	40	264	177	105
Scammon Bay	63	147	0	0	34	204	11	195	240	106	56	49	151
Coastal District Total	347	354	392	0	34	204	89	559	284	146	320	225	256
Nunam Iqua	25	256	21	337	266	115	105	176	284	127	49	181	161
Alakanuk	73	631	100	900	665	558	505	1,032	222	348	953	474	533
Emmonak	3,441	1,614	1,501	1,039	867	1,849	1,165	1,272	1,261	1,257	785	1,692	1,361
Kotlik	1,348	2,197	2,525	856	1,365	3,980	3,519	957	114	407	280	1,658	1,795
District 1 Subtotal	4,887	4,698	4,147	3,132	3,163	6,502	5,294	3,437	1,881	2,139	2,067	4,005	3,851
Mountain Village	797	1,347	1,366	2,698	2,031	1,968	313	470	478	873	918	1,648	820
Pitkas Point	294	99	603	178	233	53	5	34	16	49	0	281	31
St. Marys	1,062	542	658	310	416	722	255	227	103	762	104	598	414
Pilot Station	1,527	575	448	1,106	1,162	1,155	852	1,522	680	823	1,108	964	1,006
Marshall	471	754	2,212	388	640	696	0	1,003	341	394	291	893	487
District 2 Subtotal	4,151	3,317	5,287	4,680	4,482	4,594	1,425	3,256	1,618	2,901	2,421	4,383	2,759
Russian Mission	11	865	587	0	137	100	37	76	164	615	172	320	198
Holy Cross	665	681	1,814	420	1,095	239	523	624	0	9	76	935	279
Shageluk	186	126	305	367	329	76	38	0	0	114	50	263	46
District 3 Subtotal	862	1,672	2,706	787	1,561	415	598	700	164	738	298	1,518	523
Lower Yukon River Total	9,900	9,687	12,140	8,599	9,206	11,511	7,317	7,393	3,663	5,778	4,786	9,906	7,132
Anvik	155	269	457	514	388	126	175	29	401	179	398	357	182
Grayling	811	1,155	1,759	1,531	648	1,370	284	314	52	441	267	1,181	492
Kaltag	630	644	1,049	1,142	499	764	190	607	314	725	687	793	520
Nulato	1,109	1,137	2,299	697	367	2,338	0	151	0	1,341	1,246	1,122	766
Koyukuk	1,049	814	2,458	1,954	1,583	1,544	239	517	255	835	344	1,572	678
Galena	3,963	3,202	6,620	3,370	1,915	1,932	564	420	349	1,510	1,587	3,814	955
Ruby/Kokrines	5,553	4,695	561	2,195	2,427	907	64	581	78	2,331	1,064	3,086	792
District 4 Subtotal (Excluding Koyukuk River)	13,270	11,916	15,203	11,403	7,827	8,981	1,516	2,619	1,449	7,362	5,593	11,924	4,385
Huslia	55	1,035	298	10	0	89	35	683	0	1,786	1,139	280	519
Hughes	0 ^a	263	274	51	60	84	157	0	0	497	97	130	148
Allakaket	0 ^a	260	961	270	11	20	36	50	100	105	968	300	62
Alatna	0 ^a	0	0	0	0	0	15	0	0	0	0	0	3
Bettles	0	583	50	0	0	0	0	0	0	0	0	127	0
Koyukuk River Subtotal	55	2,141	1,583	331	71	193	243	733	100	2,388	2,204	836	731
District 4 Total	13,325	14,057	16,786	11,734	7,898	9,174	1,759	3,352	1,549	9,750	7,797	12,760	5,117

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Community	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1994-1998 Average	1999-2003 Average
Tanana	34,681	14,409	21,420	25,058	24,956	22,305	9,384	9,779	6,255	14,308	23,118	24,105	12,406
Rampart ^b	1,007	1,403	896	646	100	4,324	0	183	0	365	0	810	974
Fairbanks ^c	2,870	2,184	2,727	491	96	681	8	0	0	105	43	1,674	159
Stevens Village	45	3,194	991	1,585	1,076	20	10	20	0	857	1,080	1,378	181
Beaver	2,069	1,231	9	243	409	16	0	21	1	192	48	792	46
Ft. Yukon ^d	6,827	9,196	8,144	6,119	3,035	9,702	355	2,209	3,523	7,963	7,302	6,664	4,750
Circle	4,581	5,102	5,308	3,707	37	2,722	0	2,588	74	499	1,022	3,747	1,177
Central	0	0	132	0	0	0	0	0	0	0	0	26	0
Eagle	8,263	13,115	14,916	14,488	543	11,292	32	2,714	339	2,871	5,482	10,265	3,450
Other ^e	0	830	505	421	50	65	1	0	100	0	13	361	33
District 5 Subtotal (Excluding Chandalar and Black Rivers)	60,343	50,664	55,048	52,758	30,302	51,127	9,790	17,514	10,292	27,160	38,108	49,823	23,177
Venetie	4,302	6,085	7,195	1,564	658	2,011	130	3,286	680	770	2,083	3,961	1,375
Chalkyitsik	1,751	845	1,230	936	433	442	0	73	4	340	479	1,039	172
Chandalar and Black Rivers Subtotal	6,053	6,930	8,425	2,500	1,091	2,453	130	3,359	684	1,110	2,562	5,000	1,547
District 5 Total	66,396	57,594	63,473	55,258	31,393	53,580	9,920	20,873	10,976	28,270	40,670	54,823	24,724
Manley	13,722	20,272	10,662	5,887	4,411	5,172	0	1,230	947	1,303	1,504	10,991	1,730
Minto	1,419	4,782	4,381	2,361	505	781	2	251	100	675	0	2,690	362
Nenana	11,201	15,500	14,207	3,799	6,781	5,619	8	999	1,070	7,802	5,367	10,298	3,100
Fairbanks ^f	5,006	6,384	5,736	4,031	960	1,630	0	201	229	1,949	1,024	4,423	802
Other ^g	2,249	2,230	1,481	3,472	1,713	2,269	300	855	856	1,257	1,058	2,229	1,107
District 6 Tanana R. Total	33,597	49,168	36,467	19,550	14,370	15,471	310	3,536	3,202	12,986	8,953	30,630	7,101
Upper Yukon River Total	113,318	120,819	116,726	86,542	53,661	78,225	11,989	27,761	15,727	51,006	57,420	98,213	36,942
Alaska, Yukon River Total ^h	123,218	130,506	128,866	95,141	62,867	89,736	19,306	35,154	19,390	56,784	62,206	108,120	44,074
Alaska, Yukon Area Total	123,565	130,860	129,258	95,141	62,901	89,940	19,395	35,713	19,674	56,930	62,526	108,345	44,330

^a Due to floods in 1994, Hughes, Allakaket, and Alatna were not surveyed and the estimated harvest of fall chum salmon was zero.

^b Rampart area harvest as reported from subsistence fishing permits established by the Alaska Board of Fisheries (BOF) in 2004.

^c Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^d Includes Birch Creek harvest of zero fall chum salmon for all years surveyed.

^e Other permit holders who fished in District 5 but did not reside in the communities listed.

^f Harvests by Fairbanks subsistence permit holders who fished in the Tanana River.

^g Other permits holders who fished in District 6 but did not reside in the communities listed.

^h Does not include the Coastal District.

Appendix B4.—Coho salmon subsistence harvest totals by fishing district and community of residence, as estimated from postseason survey, returned permits and test fish projects, Yukon Area, 1994–2004.

Community	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1994-1998 Average	1999-2003 Average
Hooper Bay	1	48	92	0	145	68	218	439	125	244	9	57	219
Scammon Bay	80	104	0	0	204	0	4	63	123	48	54	78	48
Coastal District Total	81	152	92	0	349	68	222	502	248	292	63	135	266
Nunam Iqua	52	419	138	51	229	51	5	32	56	117	79	178	52
Alakanuk	94	658	103	882	292	108	84	414	183	193	207	406	196
Emmonak	959	485	594	356	696	525	191	342	514	547	296	618	424
Kotlik	2,167	689	1,610	534	954	1,046	787	486	542	403	593	1,191	653
District 1 Subtotal	3,272	2,251	2,445	1,823	2,171	1,730	1,067	1,274	1,295	1,260	1,175	2,392	1,325
Mountain Village	968	921	276	1,089	954	665	376	423	361	745	521	842	514
Pitkas Point	364	554	691	427	305	302	139	112	47	130	0	468	146
St. Marys	614	154	292	329	290	536	117	610	209	276	258	336	350
Pilot Station	811	241	1,258	323	413	249	1,708	222	230	371	296	609	556
Marshall	1,124	272	958	256	335	1,041	11	73	386	64	425	589	315
District 2 Subtotal	3,881	2,142	3,475	2,424	2,297	2,793	2,351	1,440	1,233	1,586	1,500	2,844	1,881
Russian Mission	55	891	255	10	233	542	24	0	115	178	151	289	172
Holy Cross	171	0	0	20	100	62	70	0	0	498	27	58	126
Shageluk	137	0	189	736	67	6	0	0	0	35	106	226	8
District 3 Subtotal	363	891	444	766	400	610	94	0	115	711	284	573	306
Lower Yukon River Total	7,516	5,284	6,364	5,013	4,868	5,133	3,512	2,714	2,643	3,557	2,959	5,809	3,512
Anvik	95	10	44	24	20	282	0	13	0	12	288	39	61
Grayling	36	97	236	1,055	133	201	372	144	30	559	233	311	261
Kaltag	245	426	298	60	71	333	110	533	212	463	138	220	330
Nulato	27	25	149	444	34	170	60	258	78	928	203	136	299
Koyukuk	305	33	476	345	421	295	138	80	249	1,155	166	316	383
Galena	803	275	780	1,002	322	123	71	142	169	1,507	1,307	636	402
Ruby/Kokrines	1,957	607	376	474	1,459	620	173	871	69	648	1,540	975	476
District 4 Subtotal (Excluding Koyukuk River)	3,468	1,473	2,359	3,404	2,460	2,024	924	2,041	807	5,272	3,875	2,633	2,214
Huslia	47	307	18	50	128	15	132	83	60	375	764	110	133
Hughes	0 ^a	153	51	250	5	10	12	117	100	20	110	92	52
Allakaket	0 ^a	0	39	50	0	0	0	25	56	99	17	18	36
Alatna	0 ^a	0	0	0	0	0	0	0	0	7	0	0	1
Bettles	0	1	0	0	0	0	0	0	0	0	0	0	0
Koyukuk River Subtotal	47	461	108	350	133	25	144	225	216	501	891	220	222
District 4 Total	3,515	1,934	2,467	3,754	2,593	2,049	1,068	2,266	1,023	5,773	4,766	2,853	2,436

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Community	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	1994-1998	1999-2003
												Average	Average
Tanana	2,587	2,154	6,110	3,045	2,572	3,989	4,826	6,675	2,032	3,480	1,049	3,294	4,200
Rampart ^b	99	0	5	34	20	126	0	0	0	0	0	32	25
Fairbanks ^c	25	18	42	26	11	0	2	11	0	120	91	24	27
Stevens Village	0	1	2	1	63	0	0	2	0	0	100	13	0
Beaver	10	20	7	0	0	0	0	0	17	0	0	7	3
Fort Yukon ^d	963	4	157	251 ^j	39	124	129	972	14	0	19	283	248
Circle	30	0	0	210	0	0	0	0	0	244	100	48	49
Central	0	0	0	0	0	0	0	0	0	0	0	0	0
Eagle	0	1	1	2	132	0	0	0	1	0	14	27	0
Other ^e	0	7	0	0	2	2	30	0	0	25	0	2	11
District 5 Subtotal (Excluding Chandalar and Black Rivers)	3,714	2,205	6,324	3,569	2,839	4,241	4,987	7,660	2,064	3,869	1,373	3,730	4,564
Venetie	4	0	264	7	0	0	0	10	12	11	5	55	7
Chalkyitsik	456	0	0	7	0	0	0	4	0	7	45	93	2
Chandalar/Black River Subtotal	460	0	264	14	0	0	0	14	12	18	50	148	9
District 5 Total	4,174	2,205	6,588	3,583	2,839	4,241	4,987	7,674	2,076	3,887	1,423	3,878	4,573
Manley	10,410	7,395	2,462	3,236	2,362	3,244	2,180	2,637	1,617	886	1,384	5,173	2,113
Minto	2,616	338	1,223	364	31	0	3	0	250	423	5	914	135
Nenana	9,387	7,142	7,883	5,147	3,519	4,023	1,767	4,443	3,574	5,431	6,494	6,616	3,848
Fairbanks ^f	2,103	3,076	2,314	1,230	786	868	0	102	1,024	1,049	1,435	1,902	609
Other ^g	1,973	851	1,011	1,618	774	1,259	1,200	1,818	3,034	2,574	2,266	1,245	1,977
District 6 Tanana R. Total	26,489	18,802	14,893	11,595	7,472	9,394	5,150	9,000	9,499	10,363	11,584	15,850	8,681
Upper Yukon Area Total	34,178	22,941	23,948	18,932	12,904	15,684	11,205	18,940	12,598	20,023	17,773	22,581	15,690
Alaska, Yukon River Total ^h	41,694	28,225	30,312	23,945	17,772	20,817	14,717	21,654	15,241	23,580	20,732	28,390	19,202
Alaska, Yukon Area Total	41,775	28,377	30,404	23,945	18,121	20,885	14,939	22,156	15,489	23,872	20,795	28,524	19,468

^a Due to floods in 1994, Hughes, Allakaket, and Alatna were not surveyed and the estimated harvest of coho salmon was zero.

^b Rampart area harvest as reported from subsistence fishing permits established by the Alaska Board of Fisheries (BOF) in 2004.

^c Harvests by Fairbanks subsistence permit holders who fished in District 5 near the Yukon River bridge crossing.

^d Includes Birch Creek harvest of 3 coho salmon in 1997.

^e Other permit holders who fished in District 5 but did not reside in the communities listed.

^f Harvests by Fairbanks subsistence permit holders who fished in the Tanana River.

^g Other permits holders who fished in District 6 but did not reside in the communities listed.

^h Does not include the Coastal District.

Appendix B5.—Personal use salmon harvests taken under authority of a permit, Tanana River drainage, 1987–2004.

Subdistrict 6-C Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	132 ^a	-	60 ^b			3,316	2,465
1988	208	162	120	317	1,182	2,074	1,125
1989	175	160	112	397	991	1,770	731
1990	152	144	102	442	918	1,353	1,120
1991 ^c	-	-	-	-	-	-	-
1992 ^c	-	-	-	-	-	-	-
1993	133	131	79	426	674	163	0
1994 ^c	-	-	-	-	-	-	-
1995	139	138	91	399	780	863	417
1996	129	125	73	215	905	356	198
1997	112	109	61	313	391	284	350
1998	103	101	52	357	84	2	9
1999 ^d	103	103	67	331	382	261	147
2000	70	69	16	75	30	1	0
2001	54	51	24	122	146	10	34
2002	57	55	29	126	175	3	20
2003	67	67	32	204	148	394	549
2004	68	66	35	201	231	230	233
Five Year Average							
1999-2003	70	69	34	172	176	134	150
Ten Year Average							
1994-2003	93	91	49	238	338	242	192
Subdistrict 6-A Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	1	1	0	0	0	0	0
1989	1	1	1	0	4	0	0
1990	1	1	0	0	0	0	0
1991	no permits issued						
1992	no permits issued						
1993	no permits issued						
1994	no permits issued						
1995	no permits issued						
1996	no permits issued						
1997 ^e	no permits issued						
1988-1990							
Average	1	1	0	0	1	0	0

-continued-

Appendix B5.—Page 2 of 2.

Subdistrict 6-B Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	1	1	1	306	60	40	22
1989	1	1	1	56	220	0	0
1990	4	4	3	9	12	40	35
1991	no permits issued						
1992	no permits issued						
1993	no permits issued						
1994	no permits issued						
1995	no permits issued						
1996	no permits issued						
1997 ^e	no permits issued						
1988-1990 Average	2	2	2	124	97	27	19

Upper Tanana River Personal Use Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1987	no permits issued						
1988	no permits issued						
1989	no permits issued						
1990	no permits issued						
1991 ^f	no permits issued						

^a Includes 60 former subsistence fishermen who were reissued personal use permits to fish for fall chum salmon.

^b Some fishing families used both subsistence and personal use permits.

^c From July 1, 1990 through 1992, and in 1994, the regulations did not provide for a personal use fishery in this area.

^d Does not include 4 whitefish and sucker fishery permit holders, 2 of which fished, that reported a total harvest of 1 fall chum and 6 coho salmon in 1999.

^e After 1997 the regulations did not provide for a personal use fishery in these areas.

^f After July 1, 1991 the regulations did not provide for a personal use salmon fishery in this area.

Appendix B6.—Subsistence salmon harvests taken under authority of a permit in portions of District 5, Yukon Area, 1974–2004.

Yukon River "Bridge" Area Subsistence Salmon Fishery ^a							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum ^b	Fall Chum ^b	Coho
1974	29	-	-	591	-	1,857	1,271
1975	19	-	-	727	-	778	70
1976	28	-	18	531	-	974	-
1977	38	-	-	467	-	2,567	-
1978	57	-	-	1,333	-	9,735	-
1979	55	-	41	2,194	-	12,374	-
1980	70	-	67	1,350	-	6,488	36
1981	57	-	24	1,095	-	12,034	-
1982	64	-	44	1,935	-	11,328	20
1983	68	-	46	2,672	-	15,059	-
1984	67	-	54	4,676	-	27,869	399
1985	55	-	42	2,618	-	21,832	33
1986	76	-	58	3,827	-	18,690	759
1987	16	-	14	1,818	2,091	7,631	6
1988	24	21	18	1,747	2,097	3,183	606
1989	26	20	13	2,483	574	1,157	309
1990	26	25	16	2,033	3,493	1,109	455
1991	52	46	34	2,529	1,295	3,953	20
1992	45	42	33	2,241	975	2,491	34
1993	49	47	36	3,767	492	2,915	16
1994	50	49	36	3,073	384	2,911	25
1995	59	59	39	3,253	954	2,244	59
1996	47	45	31	1,157	3,475	2,727	42
1997	44	42	28	1,588	683	491	26
1998	48	47	31	1,685	103	156	15
1999	66	64	47	1,653	356	701	2
2000	56	52	33	1,607	324	8	32
2001	65	62	38	1,819	176	0	13
2002	60	58	45	2,285	320	100	0
2003	86	80	62	2,670	89	104	145
2004	69	67	51	2,032	164	43	91
Five Year Average							
1999-2003	67	63	45	2,007	253	183	38
Ten Year Average							
1994-2003	58	56	39	2,079	686	944	36
Yukon River "Rampart Village" Area Subsistence Salmon Fishery ^c							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
2004	14	11	9	832	249	0	0
Total	14	11	9	832	249	0	0

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Upper Yukon River "Circle-Eagle" Area Subsistence Salmon Fishery ^d							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum ^b	Fall Chum ^b	Coho
1979	75	-	6	4,063	-	30,475	114
1980	48	-	39	3,649	-	18,477	6
1981	71	-	51	4,510	-	38,333	-
1982	60	-	61	3,833	-	15,432	-
1983	53	-	52	2,831	-	23,708	-
1984	58	-	54	2,543	-	21,675	17
1985	59	-	36	2,419	-	19,059	2
1986	40	-	52	4,148	-	20,701	43
1987	51	51	58	3,602	2,495	27,369	0
1988	58	57	50	2,783	2,134	9,078	101
1989	59	56	42	1,186	68	7,515	1
1990	81	75	54	3,746	1,629	14,992	206
1991	70	69	48 ^e	3,219	658	14,898	5
1992	85	79	54	2,984	409	12,009	57
1993	79	79	49	1,910	118	2,419	95
1994	79	76	51	3,093	145	12,844	30
1995	87	87	53	3,628	129	19,047	1
1996	86	84	51	3,458	528	20,861	1
1997	98	93	60	3,148	393	18,616	212
1998	101	95	54	3,562	55	630	132
1999	119	116	71	3,404	364	14,079	0
2000	121	118	47	1,806	233	33	0
2001	98	93	33	1,688	561	5,322	0
2002	94	87	42	3,877	29	418	1
2003	95	85	58	3,406	189	3,374	0
2004	89	83	50	2,304	223	6,517	114
Five Year Average							
1999-2003	105	100	50	2,836	275	4,645	0
Ten Year Average							
1994-2003	98	93	52	3,107	263	9,522	38

Note: Prior to 1988 the reported harvest was expanded for permits not returned. Beginning in 1988, reported harvest was not expanded.

^a That portion of the Yukon River drainage from Hess Creek to Dall River.

^b Summer chum and fall chum salmon undifferentiated from 1974-1986.

^c That portion of the Yukon River drainage from Garnet Island to Hess Creek. 2004 was the first year of permit requirement in this Yukon River Area.

^d That portion of the Yukon River drainage from the upstream mouth of Twenty-Two Mile Slough (downstream of Circle) to the United States/Canadian border.

^e Some fishers reporting harvests did not have permits

Appendix B7.—Subsistence salmon harvests taken under authority of a permit, Tanana River drainage, 1973–2004.

Subdistrict 6-A Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1988 ^a	28	24	18	845	1,389	9,165	3,455
1989 ^{a, b}	29	28	24 ^c	651	1,918	25,266	5,292
1990 ^b	42	36	26	1,369	2,250	27,957	8,408
1991	45	41	31	420	1,716	17,472	8,486
1992	38	35	26	508	450	5,999	5,028
1993 ^b	42	41	22	331	784	2,617	1,317
1994 ^d	37	37	30	576	3,793	18,076	12,449
1995	41	38	29	456	4,898	23,522	11,344
1996	31	29	23	209	1,338	18,931	5,959
1997	33	32	21	887	542	10,621	3,703
1998	31	31	19	512	519	4,726	1,526
1999	24	24	14	137	525	5,712	3,464
2000	24	24	12	80	240	0	2,441
2001	26	24	14	398	327	1,541	3,319
2002	24	23	20	542	101	1,341	2,246
2003	23	21	13	276	65	2,445	2,514
2004	23	23	12	339	308	2,148	2,004
<hr/>							
Five Year Average 1999-2003	24	23	15	287	252	2,208	2,797
<hr/>							
Ten Year Average 1994-2003	29	28	20	407	1,235	8,692	4,897
<hr/>							
Subdistrict 6-B Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest ^e			
				Chinook	Summer Chum	Fall Chum	Coho
1988	75	66	52	3,721	3,167	18,902	18,906
1989 ^f	60	51	37 ^d	455	363	18,506	8,453
1990 ^f	70	58	38	1,234	1,966	16,332	9,155
1991 ^f	87	78	51	1,796	2,373	21,629	11,971
1992 ^f	98	89	57	1,587	7,820	18,782	11,409
1993	99	89	38	1,341	5,976	7,166	2,987
1994	102	94	49	1,337	2,035	13,726	12,480
1995	98	98	59	1,322	6,712	25,364	7,458
1996	105	96	59	968	6,138	17,439	8,934
1997	103	95	55	1,825	3,282	8,729	7,892
1998	94	84	46	1,407	5,485	9,573	5,937
1999	83	79	47	1,487	2,129	9,757	5,930
2000	81	79	33	903	869	210	2,709
2001	87	81	44	1,511	74	1,983	5,646
2002	62	60	25	525	711	2,193	8,032
2003	77	72	40	1,839	2,849	10,537	7,849
2004	60	56	30	1,049	1,485	6,805	9,580
<hr/>							
Five Year Average 1999-2003	78	74	38	1,219	1,326	4,936	6,033
<hr/>							
Ten Year Average 1994-2003	89	84	46	1,312	3,028	9,951	7,287

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Upper Tanana River Drainage Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho
1988	0	0	0	0	0	0	0
1989	2	2	2	5	0	39	0
1990	1	1	0	0	0	0	0
1991	8	7	6	0	0	288	14
1992	11	11	4	0	0	36	1
1993	10	10	8	0	0	5	0
1994	7	7	3	0	0	202	15
1995	50	46	12	0	0	88	0
1996	42	39	15	0	10	97	0
1997	61	58	26	0	0	200	0
1998	46	46	17	0	0	71	9
1999	29	29	13	0	0	2	0
2000	41	36	16	0	2	100	0
2001	57	50	22	0	0	2	1
2002	32	31	16	0	0	25	0
2003	38	32	17	30	0	4	0
2004	35	30	14	0	0	0	0
Five Year Average 1999-2003	39	36	17	6	0	27	0
Ten Year Average 1994-2003	40	37	16	3	1	79	3
Subdistrict 6-C Subsistence Salmon Fishery							
Year	Number of Permits Issued	Number of Permits Returned	Number Reporting Harvest	Reported Harvest			
				Chinook	Summer Chum	Fall Chum	Coho ^g
1973	22	-	4	26	771	886	-
1974	70	-	-	38	1,373	1,580	-
1975	36	-	-	32	751	864	-
1976	110	-	-	31	1,314	1,512	-
1977	89	-	33	81	118	607	-
1978	160	-	126	126	2,729	1,188	-
1979	246	-	199	264	2,384	4,459	-
1980	315	-	254	282	3,729	4,059	-
1981	346	-	228	440	3,239	5,770	-
1982	330	-	209	451	2,708	4,521	-
1983	259	-	147	475	2,276	3,830	-
1984	308	-	212	321	3,177	5,134	-
1985	291	-	155	326	2,646	3,937	-
1986	323	-	211	637	4,031	4,437	-
1987 ^h	217	-	123	531	2,739	0	0
1988	0	0	0	0	0	0	0
1989 ⁱ	0	0	0	0	0	0	0
1990 ^j	19	18	6	15	69	279	50
1991	149	142	98	299	980	1,080	1,089
1992	149	146	90	343	1,234	896	1,116
1993 ^j	0	0	0	0	0	0	0
1994 ^{k, l}	145	142	107	457	1,198	1,600	1,545
All Years Average	163	64	116	235	1,703	2,120	475

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Note: Prior to 1988 the reported harvest was expanded for permits not returned. Beginning in 1988, reported harvest was not expanded. Dashes in the table indicate the information is not available.

- ^a Many Subdistrict 6-A fishermen did not obtain a permit in 1988 and 1989.
- ^b Includes salmon given away as part of ADF&G's test fishing project in Manley.
- ^c Includes harvests reported by fishermen who did not have permits.
- ^d Beginning in 1994, a separate Kantishna River drainage permit was required. The Subdistrict 6-A harvest totals include those from the Kantishna River drainage.
- ^e Totals include small numbers of salmon reported on subsistence northern pike permits harvested in the Minto Flats area subsistence northern pike fishery, established in 1993.
- ^f Includes salmon given away as part of ADF&G's test fish project in Nenana.
- ^g Prior to 1988 fall chum and coho salmon were not reported as separate species.
- ^h Personal use fishery established for nonrural residents beginning in July of 1987.
- ⁱ Some fishermen had both personal use and subsistence permits. The McDowell Decision became effective July 1990 (midway through the season), and stated that all Alaskan residents were eligible subsistence participants.
- ^j Personal use fishery was established for those fishing for salmon in the Fairbanks Nonsubsistence Area, which includes Subdistrict 6-C.
- ^k No personal use permits were issued in 1994 for this area.
- ^l After 1994 subsistence regulations was repealed within the Fairbanks Nonsubsistence Area, which includes Subdistrict 6-C.

Appendix B8.—Estimated number of salmon distributed from test fish projects, Yukon Area, 1992–2004.

Chinook Salmon																
Year	Set Gillnet Test Fish	Drift Gillnet Test Fish Projects ^a								Test Fish Wheel Projects ^a						Total
	Lower Yukon	Lower Yukon	Mountain Village	Pilot Station	Marshall	Marshall ^b	Russian Mission ^b	Kaltag	Rampart	Galena	Manley	Kantishna	Nenana	Tanana	Fort Yukon	
1992	1,715	-	-	-	-	-	-	-	-	-	0	-	113	-	-	1,828
1993	1,584	-	-	471	-	-	-	-	-	-	0	-	0	0	-	2,055
1994	1,985	-	-	334	-	-	-	-	-	-	0	-	0	0	-	2,319
1995	1,715	-	1	166	-	-	-	-	-	2	1	-	0	0	0	1,885
1996	1,355	-	0	0	-	-	-	-	-	-	0	-	0	0	0	1,355
1997	1,825	-	2	330	-	-	-	-	-	-	0	-	0	0	-	2,157
1998	1,035	-	8	435	-	-	-	-	-	-	0	-	0	0	-	1,478
1999	1,656	-	1	359	773	-	-	1	-	-	0	-	0	0	-	2,790
2000	1,344	-	0	450	1,024	11	23	0	-	-	-	0	0	0	-	2,852
2001	1,379	535	-	561	-	27	11	-	-	-	-	0	0	-	-	2,513
2002	1,268	253	-	545	-	8	18	-	-	-	-	0	0	0	-	2,092
2003	^c	374	-	846	-	-	33	-	0	-	-	0	0	0	-	1,253
2004	^c	1,158	-	665	-	-	20	-	-	-	-	0	0	0	-	1,843
Five Year Average																
1999 to 2003		1,412	387	1	552	899	15	21	1	0	-	0	0	0	0	2,300
Summer Chum Salmon																
Year	Set Gillnet Test Fish	Drift Gillnet Test Fish Projects ^a								Test Fish Wheel Projects ^a						Total
	Lower Yukon	Lower Yukon	Mountain Village	Pilot Station	Marshall	Marshall ^b	Russian Mission ^b	Kaltag	Rampart	Galena	Manley	Kantishna	Nenana	Tanana	Fort Yukon	
1992	3,989	-	-	-	-	-	-	-	-	-	0	-	112	-	-	4,101
1993	4,111	-	-	2,098	-	-	-	-	-	-	33	-	0	0	-	6,242
1994	7,060	-	-	2,998	-	-	-	-	-	-	0	-	0	0	-	10,058
1995	6,382	-	0	1,875	-	-	-	-	-	57	50	-	0	0	0	8,364
1996	7,052	-	0	276	-	-	-	-	-	-	0	-	0	0	0	7,328
1997	4,539	-	0	2,420	-	-	-	-	-	-	0	-	0	0	-	6,959
1998	2,290	-	0	2,209	-	-	-	-	-	-	0	-	0	147	-	4,646
1999	2,717	-	0	1,636	181	-	-	0	-	-	0	-	0	0	-	4,534
2000	2,499	-	0	2,141	335	0	0	0	-	-	-	5	0	0	-	4,980
2001	211	1,787	-	1,696	-	1	2	-	-	-	-	0	0	-	-	3,697
2002	199	2,209	-	2,174	-	10	0	-	-	-	-	0	0	0	-	4,592
2003	^c	1,801	-	2,060	-	-	5	-	0	-	-	0	0	0	-	3,866
2004	^c	868	-	1,848	-	-	0	-	-	-	-	0	0	0	-	2,716
Five Year Average																
1999 to 2003		1,407	1,932	0	1,941	258	4	2	0	-	-	0	1	0	0	4,334

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Fall Chum Salmon																
Year	Set Gillnet Test Fish	Drift Gillnet Test Fish Projects ^a								Test Fish Wheel Projects ^a						Total
	Lower Yukon	Lower Yukon	Mountain Village	Pilot Station	Marshall	Marshall ^u	Russian Mission ^b	Kaltag	Rampart	Galena	Manley	Kantishna	Nenana	Tanana	Fort Yukon	
1992	2,462	-	-	-	-	-	-	-	-	-	0	-	110	-	-	2,572
1993	3,692	-	-	652	-	-	-	-	-	-	65	-	0	0	-	4,409
1994	2,566	-	-	1,349	-	-	-	-	-	-	0	-	7	1,895	-	5,817
1995	2,408	-	523	541	-	-	-	-	-	199	194	-	0	1,876	1,570	7,311
1996	1,421	-	319	150	-	-	-	-	-	-	0	-	0	0	1,081	2,971
1997	1,466	-	962	997	-	-	-	-	-	-	0	-	0	0	-	3,425
1998	2,000	-	664	1,110	-	-	-	-	-	-	0	-	0	0	-	3,774
1999	4,061	-	1,008	968	0	-	-	483	-	-	0	-	0	0	-	6,520
2000	2,921	-	269	834	0	0	0	190	-	-	-	0	0	0	-	4,214
2001	-	1,694	339	1,492	-	0	0	494	-	-	-	0	0	0	-	4,019
2002	-	1,050	175	680	-	0	0	314	-	-	-	0	0	0	-	2,219
2003	-	1,247	328	823	-	-	0	457	873	-	-	0	0	0	-	3,728
2004	-	635	425	726	-	-	0	592	-	-	-	0	0	0	-	2,378
Five Year Average																
1999 to 2003	3,491	1,330	424	959	0	0	0	388	873	-	0	0	0	0	-	4,140

Coho Salmon																
Year	Set Gillnet Test Fish	Drift Gillnet Test Fish Projects ^a								Test Fish Wheel Projects ^a						Total
	Lower Yukon	Lower Yukon	Mountain Village	Pilot Station	Marshall	Marshall ^b	Russian Mission ^b	Kaltag	Rampart	Galena	Manley	Kantishna	Nenana	Tanana	Fort Yukon	
1992	2,557	-	-	-	-	-	-	-	-	-	0	-	0	-	-	2,557
1993	1,210	-	-	222	-	-	-	-	-	-	0	-	0	0	-	1,432
1994	2,033	-	-	786	-	-	-	-	-	-	0	-	0	266	-	3,085
1995	579	-	559	205	-	-	-	-	-	0	0	-	0	164	0	1,507
1996	755	-	228	25	-	-	-	-	-	-	0	-	0	0	0	1,008
1997	593	-	309	283	-	-	-	-	-	-	0	-	0	0	-	1,185
1998	792	-	567	364	-	-	-	-	-	-	0	-	0	0	-	1,723
1999	649	-	2	180	0	-	-	70	-	-	0	-	0	0	-	901
2000	949	-	313	1,705	0	0	0	110	-	-	-	322	0	0	-	3,399
2001	-	492	302	180	-	0	0	251	-	-	-	0	0	0	-	1,225
2002	-	374	155	225	-	0	0	158	-	-	-	0	0	0	-	912
2003	-	635	362	371	-	-	0	23	0	-	-	0	0	0	-	1,391
2004	-	152	285	236	-	-	0	128	-	-	-	0	0	0	-	801
Five Year Average																
1999 to 2003	799	500	227	532	0	0	0	122	0	-	0	81	0	0	-	1,566

-continued-

Note: Dashes indicate test fish project was not in operation.

^a Does not include salmon that were accounted for by using the survey or permit methods.

^b Chinook salmon radio telemetry project.

^c Salmon caught in the Lower Yukon River set gillnet test fishery are included with Lower Yukon River drift gillnet totals.

Appendix B9.—Estimated pink salmon subsistence harvest by residents of surveyed villages, with village and district totals, Yukon Area, 1994–2004.

Community	1994 ^a	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Estimated Total		
												Even Years Average	Odd Years Average	1994 to 2003 Average
Hooper Bay	734	326	3,212	265	1,941	99	902	32	5,475	473	5,418	2,947	239	1,346
Scammon Bay	1,319	559	305	0	1,791	527	96	362	417	997	2,508	1,073	489	637
Coastal District	2,053	885	3,517	265	3,732	626	998	394	5,892	1,470	7,926	4,020	728	1,983
Nunam Iqua	1,388	1	262	1	299	0	0	0	10	5	32	332	1	197
Alakanuk	54	124	35	33	239	0	38	0	130	0	233	122	31	65
Emmonak	1,451	5	46	35	145	17	0	9	39	4	32	286	14	175
Kotlik	1,340	2	100	0	907	15	263	0	849	198	318	629	43	367
District 1	4,233	132	443	69	1,590	32	301	9	1,028	207	615	1,368	90	804
Mountain Village	806	35	611	10	753	0	61	0	745	117	891	644	32	314
Pitkas Point	163	4	280	101	330	12	114	0	35	0	0	154	23	104
St. Mary's	850	0	42	4	467	1	54	0	7	0	137	260	1	143
Pilot Station	32	0	0	0	0	8	6	0	22	0	5	11	2	7
Marshall	880	6	0	0	0	0	0	0	473	0	105	243	1	136
District 2	2,731	45	933	115	1,550	21	235	0	1,282	117	1,138	1,312	60	703
Russian Mission	200	0	0	0	211	0	8	0	0	0	6	71	0	42
Holy Cross	89	0	140	0	150	0	20	0	0	0	0	67	0	40
Shageluk	0	0	40	0	1,256	0	0	0	0	130	0	216	26	143
District 3	289	0	180	0	1,617	0	28	0	0	130	6	353	26	224
Anvik	475	0	0	0	50	0	30	0	0	240	0	93	48	80
Grayling	451	0	4	0	649	1	0	0	30	3	0	189	1	114
Kaltag	0	0	0	11	1	1	0	0	0	0	10	2	2	1
Nulato	4	0	0	0	0	0	0	0	50	0	0	9	0	5
Koyukuk	4	0	0	23	0	0	0	0	4	0	0	1	5	3
Galena	61	0	52	0	0	0	0	0	50	0	0	27	0	16
Ruby	0	0	3	0	0	0	1	0	87	0	2	16	0	9
Huslia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hughes	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Allakaket	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Alatna	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bettles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 4	995	0	59	34	700	2	31	0	221	243	12	336	56	228
Tanana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stevens Village	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Birch Creek	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fort Yukon	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Venetie	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chalkyitsik	0	0	0	0	0	0	0	0	0	0	0	0	0	0
District 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Survey Totals	10,301	1,062	5,132	483	9,189	681	1,593	403	8,423	2,167	9,697	7,389	959	3,943
CI (95%) ^b	2,496	635	2,204	290	2,511	621	559	416	4,091	964	2,829	-	-	-

^a Due to floods in 1994, Hughes, Allakaket, and Alatna were not surveyed and the estimated harvest of pink salmon was zero.

^b Includes annual 95% confidence interval, CI (95%).

Appendix B10.—Households with dogs, number of dogs, and salmon fed to dogs, as estimated in surveyed villages or reported in permit areas, Yukon Area, 1990–2004.

Districts Survey or Permit and Year	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
1990						
Coastal District Survey	-	-	-	-	-	-
District 1 Survey	-	455	2,859	372	0	3,231
District 2 Survey	-	775	3,278	415	3,665	7,358
District 3 Survey	-	272	8,248	120	166	8,534
District 4 Survey	-	1,385	91,256	6,911	2,511	100,678
District 5 Survey	-	1,286	5,697	72,424	9,118	87,239
District 5 Permit ^a	-	-	-	-	-	-
District 6 Permit	-	-	-	-	-	-
Totals	0	4,173	111,338	80,242	15,460	207,040
1991						
Coastal District Survey	-	-	-	-	-	-
District 1 Survey	-	349	30	0	16	46
District 2 Survey	-	543	723	652	874	2,249
District 3 Survey	-	145	1,747	150	0	1,897
District 4 Survey	-	1,660	169,866	903	591	171,360
District 5 Survey	-	1,520	28,518	54,657	2,754	85,929
District 5 Permit ^a	49	400	-	-	-	11,522
District 6 Permit	220	1,980	-	-	-	19,479
Totals	269	6,597	200,884	56,362	4,235	292,482
1992						
Coastal District Survey	133	513	659	0	0	659
District 1 Survey	262	617	512	1,000	153	1,665
District 2 Survey	285	971	694	247	2,237	3,178
District 3 Survey	113	507	4,893	74	37	5,004
District 4 Survey	436	2,065	139,513	6,950	3,323	149,786
District 5 Survey	323	1,577	12,897	38,529	14,529	65,955
District 5 Permit ^a	52	492	-	-	-	7,026
District 6 Permit	255	2,270	-	-	-	18,115
Totals	1,859	9,012	159,168	46,800	20,279	251,388
1993						
Coastal District Survey	150	391	0	0	0	0
District 1 Survey	280	690	654	70	22	746
District 2 Survey	232	880	794	260	670	1,724
District 3 Survey	118	447	2,671	734	162	3,567
District 4 Survey	435	1,645	44,793	3,905	579	49,277
District 5 Survey	348	1,840	5,490	38,888	5,147	49,525
District 5 Permit ^a	54	1,031	-	-	-	1,133
District 6 Permit	143	1,857	-	-	-	1,547
Totals	1,760	8,781	54,402	43,857	6,580	107,519
1994						
Coastal District Survey	161	367	1,287	0	0	1,287
District 1 Survey	288	819	267	144	384	795
District 2 Survey	286	1,074	1,066	653	2,470	4,189
District 3 Survey	123	413	5,279	0	162	5,441
District 4 Survey ^b	427	1,649	92,127	4,720	2,916	99,763
District 5 Survey	355	1,426	10,903	51,674	4,422	66,999
District 5 Permit ^a	103	534	-	-	-	9,824
District 6 Permit	212	2,269	-	-	-	34,111
Totals	1,955	8,551	110,929	57,191	10,354	222,409
1995						
Coastal District Survey	158	596	2,919	214	0	3,133
District 1 Survey	223	391	531	43	7	581
District 2 Survey	213	677	1,587	436	979	3,002
District 3 Survey	111	347	8,450	265	100	8,815
District 4 Survey	423	1,830	183,386	9,092	1,151	193,629
District 5 Survey	356	1,442	6,222	50,680	2,107	59,009
District 5 Permit ^a	54	495	-	-	-	17,980
District 6 Permit	103	1,723	-	-	-	50,731
Totals	1,641	7,501	203,095	60,730	4,344	336,880

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Districts Survey or Permit and Year	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
1996						
Coastal District Survey	159	406	0	0	0	0
District 1 Survey	298	682	1,847	250	38	2,135
District 2 Survey	251	1,044	1,460	1,724	1,423	4,607
District 3 Survey	134	513	3,558	0	0	3,558
District 4 Survey	468	1,607	130,575	5,771	1,324	137,670
District 5 Survey	325	1,289	10,155	48,836	5,966	64,957
District 5 Permit ^a	53	293	-	-	-	14,345
District 6 Permit	176	1,907	-	-	-	43,590
Totals	1,864	7,741	147,595	56,581	8,751	270,862
1997						
Coastal District Survey	174	494	837	0	0	837
District 1 Survey	255	683	103	0	0	103
District 2 Survey	301	1,075	779	498	142	1,419
District 3 Survey	111	492	11,418	400	746	12,564
District 4 Survey	430	1,209	63,850	4,481	3,141	71,472
District 5 Survey	254	1,146	2,943	33,188	2,961	39,092
District 5 Permit ^a	95	569	-	-	-	19,584
District 6 Permit	156	1,898	-	-	-	12,813
Totals	1,776	7,566	79,930	38,567	6,990	157,884
1998						
Coastal District Survey	185	503	0	0	0	0
District 1 Survey	259	555	1,711	270	0	1,981
District 2 Survey	293	966	682	110	137	929
District 3 Survey	106	394	4,288	32	202	4,522
District 4 Survey	560	1,731	14,468	3,394	1,935	19,797
District 5 Survey	356	1,342	2,029	29,448	2,680	34,157
District 5 Permit ^a	113	598	-	-	-	1,262
District 6 Permit	136	1,610	-	-	-	22,311
Totals	2,008	7,699	23,178	33,254	4,954	84,959
1999						
Coastal District Survey	163	276	135	0	0	135
District 1 Survey	252	451	254	20	25	299
District 2 Survey	312	982	778	52	1,277	2,107
District 3 Survey	95	374	4,153	50	240	4,443
District 4 Survey	481	1,502	15,546	3,399	1,513	20,458
District 5 Survey	273	1,233	1,436	36,006	3,844	41,286
District 5 Permit ^a	141	739	-	-	-	11,013
District 6 Permit	107	1,321	-	-	-	13,256
Totals	1,824	6,878	22,302	39,527	6,899	92,997
2000						
Coastal District Survey	215	451	0	0	0	0
District 1 Survey	247	552	1,240	741	0	1,981
District 2 Survey	307	941	467	30	30	527
District 3 Survey	111	374	419	150	70	639
District 4 Survey	441	1,318	4,237	846	329	5,412
District 5 Survey	236	811	1,263	5,972	1,791	9,026
District 5 Permit ^{a c}	67	568	-	-	-	317
District 6 Permit ^c	70	1,327	-	-	-	3,082
Totals	1,694	6,342	7,626	7,739	2,220	20,984
2001						
Coastal District Survey	234	495	0	0	0	0
District 1 Survey	318	609	223	100	0	323
District 2 Survey	331	926	255	210	80	545
District 3 Survey	114	610	873	111	25	1,009
District 4 Survey	553	2,074	4,571	2,014	1,263	7,848
District 5 Survey	293	1,026	1,649	10,629	5,976	18,254
District 5 Permit ^{a c}	121	583	-	-	-	8,065
District 6 Permit ^c	130	1,266	-	-	-	7,506
Totals	2,094	7,589	7,571	13,064	7,344	43,550

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Districts Survey or Permit and Year	Number of Households with Dogs	Number of Dogs	Summer Chum Salmon Fed to Dogs	Fall Chum Salmon Fed to Dogs	Coho Salmon Fed to Dogs	Total Salmon Fed to Dogs
2002						
Coastal District Survey	207	399	0	0	67	67
District 1 Survey	282	655	14	59	30	103
District 2 Survey	327	847	221	38	379	638
District 3 Survey	88	312	620	0	0	620
District 4 Survey	437	1,502	8,286	848	697	9,831
District 5 Survey	197	677	2,256	6,324	1,393	9,973
District 5 Permit ^{a c}	81	546	-	-	-	689
District 6 Permit ^c	111	806	-	-	-	11,722
Totals	1,730	5,744	11,397	7,269	2,566	33,643
2003						
Coastal District Survey	132	365	0	0	0	0
District 1 Survey	239	483	115	0	38	153
District 2 Survey	236	729	635	0	58	693
District 3 Survey	87	298	3,650	0	0	3,650
District 4 Survey	384	1,728	15,648	4,118	3,271	23,037
District 5 Survey	221	864	3,268	19,267	2,862	25,397
District 5 Permit ^{a c}	59	672	-	-	-	1,614
District 6 Permit ^c	161	866	-	-	-	12,717
Totals	1,519	6,005	23,316	23,385	6,229	67,261
2004						
Coastal District Survey	151	300	13	0	0	13
District 1 Survey	235	505	435	21	0	456
District 2 Survey	270	630	1,030	62	376	1,468
District 3 Survey	97	272	1,228	0	0	1,228
District 4 Survey	421	1,424	12,608	3,382	3,232	19,222
District 5 Survey	241	853	2,134	31,266	1,103	34,503
District 5 Permit ^{a c}	60	644	-	-	-	3,428
District 6 Permit ^c	149	1,003	-	-	-	18,261
Totals	1,624	5,631	17,448	34,731	4,711	78,579
Five Year Average 1999 to 2003						
Coastal District Survey	190	397	27	0	13	40
District 1 Survey	268	550	369	184	19	572
District 2 Survey	303	885	471	66	365	902
District 3 Survey	99	394	1,943	62	67	2,072
District 4 Survey	459	1,625	9,658	2,245	1,415	13,317
District 5 Survey	244	922	1,974	15,640	3,173	20,787
District 5 Permit ^{a c}	94	622	-	-	-	4,340
District 6 Permit ^c	116	1,117	-	-	-	9,657
Totals	1,772	6,512	14,442	18,197	5,052	51,687

Note: Beginning in 1993, the estimated number of salmon includes those retained from subsistence and commercial (commercial-related) harvests. Dashes indicate information was not collected.

^a Permit totals do not include the community of Stevens Village.

^b Does not include the communities of Hughes, Allakaket and Alatna which were not surveyed due to a major flood event.

^c Does not include duplicate information from households with more than 1 permit.

Appendix B11.—Estimated and reported subsistence and personal use harvest of miscellaneous fish species, Yukon Area, 1994–2004.

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	Five Year Average 1994-1998	Five Year Average 1999-2003
Survey Estimates ^a													
Whitefish	84,734	58,660	63,610	77,630	70,261	50,748	45,292	86,200	78,489	68,416	64,039	70,979	65,829
Pike	28,515	17,646	18,833	29,540	22,459	16,928	9,174	16,753	18,906	22,341	18,738	23,399	16,820
Sheefish	17,117	12,186	17,793	19,538	19,159	12,550	6,581	14,384	15,960	14,280	16,896	17,159	12,751
Survey Reported													
Burbot	9,181	4,602	13,654	6,381	6,704	11,545	2,168	2,836	5,809	3,000	2,628	8,104	5,072
Lamprey	2,565	5,122	4,630	2,533	2,580	30,536	785	4,520	623	29,886	33,919	3,486	13,270
Tomcod	1,875	4,724	4,554	6,088	5,401	2,399	2,999	7,278	4,497	4,608	5,649	4,528	4,356
Grayling	1,559	1,285	1,664	1,600	1,578	1,476	346	1,503	1,408	2,421	1,645	1,537	1,431
Suckers	304	210	191	667	128	104	364	277	546	234	178	300	305
Arctic Char	174	265	210	131	206	131	32	251	198	376	116	197	198
Blackfish	190,736	233,890	145,752	275,469	302,623	165,252	42,110	85,938	432,967	161,703	229,833	229,694	177,594
Sockeye Salmon ^b	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	787	-	-
Permit Reported													
Whitefish	3,509	3,172	5,474	5,157	4,019	3,734	3,205	2,430	2,856	5,508	4,402	4,266	3,547
Pike	1,214	1,280	2,113	1,978	793	812	687	451	791	1,266	606	1,476	801
Sheefish	361	87	127	190	137	176	85	75	66	203	97	180	121
Burbot	196	187	105	215	137	101	95	124	65	129	127	168	103
Grayling	3	10	315	154	55	439	521	51	138	1,228	1,032	107	475
Suckers	68	456	1,156	858	459	986	739	236	344	978	341	599	657
Yukon Area Totals													
Whitefish	88,243	61,832	69,084	82,787	74,280	54,482	48,497	88,630	81,345	73,924	68,441	75,245	69,376
Pike	29,729	18,926	20,946	31,518	23,252	17,740	9,861	17,204	19,697	23,607	19,344	24,874	17,622
Sheefish	17,478	12,273	17,920	19,728	19,296	12,726	6,666	14,459	16,026	14,483	16,993	17,339	12,872
Burbot	9,377	4,789	13,759	6,596	6,841	11,646	2,263	2,960	5,874	3,129	2,755	8,272	5,174
Lamprey	2,565	5,122	4,630	2,533	2,580	30,536	785	4,520	623	29,886	33,919	3,486	13,270
Tomcod	1,875	4,724	4,554	6,088	5,401	2,399	2,999	7,278	4,497	4,608	5,649	4,528	4,356
Grayling	1,562	1,295	1,979	1,754	1,633	1,915	867	1,554	1,546	3,649	2,677	1,645	1,906
Suckers	372	666	1,347	1,525	587	1,090	1,103	513	890	1,212	519	899	962
Arctic Char	174	265	210	131	206	131	32	251	198	376	116	197	198
Blackfish	190,736	233,890	145,752	275,469	302,623	165,252	42,110	85,938	432,967	161,703	229,833	229,694	177,594
Sockeye Salmon ^b	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	787	-	-

^a Subsistence whitefish, northern pike, and inconnu estimates in surveyed communities is based on a stratified random sample of households as designated for the estimation of subsistence salmon harvest.

^b 2004 was first year sockeye salmon harvest question included on survey form.

Appendix B12.—Surveyed households which indicated that their subsistence salmon needs were not met, Yukon Area, 1992–2002.

Year	Total Number of Households Contacted	Total Number of Responses Indicating Needs Were not Met ^a	Percent of Responses Indicating Needs Were not Met ^a	Percent of Responses Indicating Poor Salmon Returns
1992	870	272	31%	7%
1993	979	514	53%	8%
1994	933	345	37%	1%
1995	1,011	207	20%	1%
1996	951	230	24%	6%
1997	915	213	23%	6%
1998	970	593	61%	47%
1999	1,024	385	38%	18%
2000 ^b	932	592	64%	77%
2001	885 ^c	496	56%	27%
2002	799 ^c	437	55%	25%
Average 1992 to 2002	934	389	42%	20%

^a This question was altered after 2002 season. Subsequent results are included in Appendix B13.

^b A different method from prior years was used from 2000 to 2002 to provide an indication of the quality of the salmon runs by species. The method used was a weighted average expressed in percent of Chinook, summer chum, fall chum, and coho salmon responses from households that indicated poor salmon runs by species contributed to not meeting their needs.

^c Total number of households that answered this survey question, rather than total number households contacted.

Appendix B13.—Households’ response to the survey question assessing their success of subsistence salmon needs being met (in percent), by species, Yukon Area, 2003 and 2004.

Chinook Salmon						
Year	Total Households	Total Household Responses ^a	Household Responses (≤) 50% Needs Met		Household Responses (>) 50% Needs Met	
			Responses	Percent	Responses	Percent
2003 ^b	2,351	639	223	0.35	416	0.65
2004	2,274	693	203	0.29	490	0.71
Average	2,313	666	213	0.32	453	0.68

Summer Chum Salmon						
Year	Total Households	Total Household Responses ^a	Household Responses (≤) 50% Needs Met		Household Responses (>) 50% Needs Met	
			Responses	Percent	Responses	Percent
2003 ^b	2,351	421	152	0.36	269	0.64
2004	2,274	542	187	0.35	355	0.65
Average	2,313	482	170	0.35	312	0.65

Fall Chum Salmon						
Year	Total Households	Total Household Responses ^a	Household Responses (≤) 50% Needs Met		Household Responses (>) 50% Needs Met	
			Responses	Percent	Responses	Percent
2003 ^b	2,351	181	58	0.32	123	0.68
2004	2,274	210	81	0.39	129	0.61
Average	2,313	196	70	0.36	126	0.64

Coho Salmon						
Year	Total Households	Total Household Responses ^a	Household Responses (≤) 50% Needs Met		Household Responses (>) 50% Needs Met	
			Responses	Percent	Responses	Percent
2003 ^b	2,351	116	40	0.34	76	0.66
2004	2,274	177	71	0.40	106	0.60
Average	2,313	147	71	0.48	106	0.72

^a Total number of households surveyed who answered this question.

^b In 2003, the survey question “How successful was your household in meeting its subsistence salmon needs?” (indicated by percent “needs met”) targeted primarily only those households selected to be surveyed that indicated they subsistence fished for salmon and does not necessarily include all selected households that did not fish.

APPENDIX C. HISTORY OF REGULATORY CHANGES

Appendix C1.—A brief history of regulatory changes made to the Yukon Area Alaskan subsistence and personal use salmon fisheries, 1960–2004.

1960

- Alaska Department of Fish and Game is given responsibility to manage all Alaskan subsistence and commercial fisheries.
- Commercial fishing is open six days per week, subsistence fishing is open 5.5 days per week.
- Once commercial fishing season ends, subsistence fishing is open 7 days per week.

1961

- Lower Yukon Area (Districts 1 – 3) commercial fisheries are open 4 days per week.
- Directed fall chum salmon fishery begins.

1962

- Four commercial fishing districts established within Alaskan portion of the Yukon River drainage.
- Subsistence fishing in the Lower Yukon Area is reduced to 4 days per week (concurrent with commercial).

1974

- Six commercial fishing districts established within Alaskan portion of the Yukon River drainage.
- Subsistence fishing restrictions are implemented along the southern portion of the Dalton Highway.
- Upper Yukon Area (Districts 4 – 6) begins concurrent subsistence and commercial fishing 5 days per week.
- Subsistence fishing schedules are linked to commercial fishing schedules in Districts 1-6.

1974–77

- Legalized sale of salmon roe from Yukon Area subsistence caught salmon.

1976

- Limited entry begins for Yukon River commercial fisheries.
 - Streams crossing the Dalton Highway north of the Yukon River are closed to subsistence fishing.
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1977

- Lower Yukon Area is reduced to subsistence/commercial fishing 3 days per week during the commercial Chinook salmon season.
- Lower Yukon Area is reduced to subsistence/commercial fishing 3.5 days per week during the fall chum salmon season.

1978

- Passage of the *State of Alaska Subsistence Act*, which provides a rural subsistence priority in times of shortage.
- Commercial salmon roe fishery begins in the Upper Yukon Area.

1979

- Lower Yukon Area is reduced to subsistence/commercial fishing 3 days per week during the fall chum salmon season.

1980

- ANILCA (*Alaska National Interest Lands Conservation Act*) provides for a rural subsistence priority on Federal lands.

1980–89

- Unified management of subsistence fishing by the State of Alaska consistent with ANILCA and the *State of Alaska Subsistence Act*.

1981

- Commercial fishing periods in the Lower Yukon Area can be established inseason by state emergency order.

1982

- Tanana River Subdistrict 6-C Subsistence Management Plan established.

1983–84

- Lower Yukon Area subsistence periods established inseason by emergency order.

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1986

- Personal use fisheries created for Alaska residents living in non-rural areas. Non-rural residents are classified as “personal use” fishers rather than subsistence fishers regardless of where they fish.

1987

- Regulations for a personal use fall chum salmon fishery established in the Yukon Area.
- Regulatory *Yukon Area Fall Chum Salmon Management Plan* established.

1988

- Subdistricts 6-A, 6-B and 6-C subsistence and personal use periods are limited to two 42 hour periods per week.
- “Old Minto Area” is open to subsistence salmon fishing 5 days per week.
- Upper Tanana Area remains open to subsistence fishing 7 days per week.
- Regulations for personal use fisheries for all salmon species established in the Yukon Area.

1990

- Court case removes rural residency requirement for subsistence participation (*McDowell v. State*).
- Regulatory *Yukon River Summer Chum Salmon Management Plan* established.
- Regulatory *Tanana River Salmon Management Plan* established.

1992

- Alaska divided into subsistence and non-subsistence areas. Personal use fishing only allowed within the non-subsistence areas.
- Upper Yukon Area commercial periods established inseason by emergency order.

1993

- Regulations implemented separating subsistence and commercial salmon fishing times in Districts 1-3 and Subdistrict 4-A (prior to 1993 subsistence and commercial periods coincided).
 - In Districts 1-3 subsistence salmon fishing is open 24 hours/day until commercial season begins. Once commercial fishing begins subsistence fishing is closed 18 hours before, during and 12 hours after each commercial period. Additional periods for subsistence salmon fishing may be authorized.

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- Subdistricts 4-B, 4-C, 5-B and 5-C subsistence salmon fishing is open 7 days per week until commercial season begins, then commercial and subsistence periods coincide. Additional periods for subsistence salmon fishing may be authorized.
- Koyukuk River, Kantishna River and Subdistrict 5-D remain open to subsistence salmon fishing 7 days per week.
- Court case declares subsistence and non-subsistence areas are unconstitutional and subsistence salmon fishing again allowed statewide (*State v. Kenaitze Indian Tribe*).
- Regulatory *Toklat River Fall Chum Salmon Rebuilding Management Plan* established.

1994

- Subdistrict 5-A subsistence salmon fishing is allowed 5 days per week once commercial season ends.
- Regulatory *Anvik River Chum Salmon Fishery Management Plan* established.

1995

- Alaska Supreme Court reverses decision in *Kenaitze* case and Alaska is again divided into subsistence and non-subsistence areas. Personal use fishing is only allowed within the non-subsistence areas.
- Ninth Circuit Court finds that Federal jurisdiction for fisheries should be extended to navigable waters on Federal lands (*State of Alaska v. Babbitt* a.k.a. *Katie John decision*). US Senator Stevens delays implementation.

1998

- Subdistrict 5-A subsistence salmon fishing is allowed 7 days per week once commercial season ends.
- Regulatory *Yukon River King Salmon Management Plan* established.

1999

- Subdistrict 5-A subsistence salmon fishing is returned to 5 days per week once commercial season ends because in 1998 Toklat River escapement goals were not met.
- Regulatory *Yukon River Coho Salmon Management Plan* established.

2000

- U.S. Fish and Wildlife Service begin first season of joint subsistence fisheries management authority with ADF&G in portions of the Yukon Area.

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2001

- Subsistence fishing schedule “windows” established for times of conservation implemented throughout the entire Yukon River Area when there is no commercial fishing season:
 - Districts 1-3 area open to subsistence salmon fishing for two 36 hour periods per week.
 - District 4 and Subdistricts 5-B and 5-C are open to subsistence salmon fishing for two 48 hour periods per week.
 - Subdistricts 5-A, 6-A and 6-B (includes the Kantishna River) are open to subsistence salmon fishing for two 42 hour periods per week.
 - The “Old Minto Area” is open to subsistence salmon fishing 5 days per week.
 - The Coastal District, Koyukuk River and Subdistrict 5-D are open to subsistence salmon fishing 7 days per week.
 - Subdistrict 6-C is open to personal use salmon fishing for two 42 hour periods per week.
- Amounts necessary for subsistence defined by salmon species for Yukon Area:
 - Chinook salmon: 45,500 - 66,704 fish
 - Summer chum salmon: 83,500 - 142,192 fish
 - Fall chum salmon: 89,500 - 167,900 fish
 - Coho salmon: 20,500 - 51,980 fish

2004

- *Yukon River King Salmon Management Plan.*
 - During times of chum salmon conservation, the commercial fish wheel season may be closed by emergency order and immediately reopen the season during which set gillnet gear may be used instead of a fish wheel.
- *Yukon River Drainage Fall Chum Salmon Management Plan* revised.
 - Plan to be implemented from July 16 through December 31 to ensure adequate escapement for fall chum salmon into the Yukon River drainage and to provide management guidelines to ADF&G.
 - Subsistence fishing schedule of seven days a week fishing in the Kantishna River.
 - Returned Subdistrict 5-A to two 48-hour periods per week from 6:00 pm. Tuesdays until 6:00 p.m. Thursdays and from 6:00 pm. Fridays until 6:00 p.m. Sundays.
- *Toklat River Fall Chum Salmon Rebuilding Management Plan* repealed and elements of the plan incorporated into the *Yukon River Drainage Fall Chum Salmon Management Plan*.
- *Tanana River Salmon Management Plan.*
 - In Subdistricts 6-A and 6-B, through September 30, the subsistence salmon fishing periods are from 6:00 p.m. Fridays until 12:00 noon Sundays and from 6:00 p.m. Mondays until 12:00 Wednesdays, unless altered by emergency order. This allows for possible seven days a week subsistence fishing beginning October 1.

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- In Subdistrict 4-A, king salmon may be taken during the commercial fishing season with drift gillnet gear only for two 48-hour fishing periods per week, by emergency order from 6:00 p.m. Sundays until 6:00 p.m. Tuesdays and from 6:00 p.m. Wednesdays until 6:00 p.m. Fridays.
- New subsistence required permit areas in portions of the Koyukuk River along the Dalton Highway and Yukon River drainage from Garnet Island to Hess Creek:
 - South Fork of the Koyukuk River drainage upstream from the mouth of the Jim River and the Middle Fork of the Koyukuk River drainage upstream from the mouth of the North Fork. The Koyukuk River areas along the Dalton Highway were closed but are now opened for subsistence fishing for nonsalmon species with permit and gear stipulations. Gillnets gear may be used only from November 1 through June 30 and a gillnet mesh size may not exceed three and one-half inches.
 - Yukon River drainage upstream from the westernmost tip of Garnet Island to the mouth of Hess Creek of Subdistrict 5-C in an effort to document harvest by transient fishermen. This change now requires a subsistence fishing permit in the entire Subdistrict 5-C.